

Sequence Range: 1 to 4512

50
AGATCTCTAT GAAAAATGGC AAAATCAACA ATAATCCCTT GGCTATATGG TGGTATTCTT
TCTAGAGATA CTTTTTACCG TTTTAGTTGT TATTAGGGAA CCGATATACC ACCATAAAGA

100
GTTAAAAGTG ACTTATGGGT AGATTTTTTA GCTTCATAGA TTCTTTGTCTG AAAAAAATT
CAATTTTCAC TGAATACCCA TCTAAAAAT CGAAGTATCT AAGAAACAGC TTTTTTTTAA

150
ACTTTGTACA TTTTAGTGGA GTTATTTAAA TTTCCCAATT GAACAAAACC ATATATTGAT
TGAAACATGT AAAATCACCT CAATAAATT AAAGGGTTAA CTTGTTTTGG TATATACTA

200
GAAATTCGCA AATGCAATCC AAAAATAAAT ATGTTCCACT CTTTTGGTTA GCTTTTAACT
CTTTAAGCGT TTACGTTAGG TTTTATTTA TACAAGGTGA GAAAACCAAT CGAAAATGA

250
AAACATGCGT TTT----- TTCCAGCTAG TACGAGTCTC TATATATAAA CTTTCTTAAT
TTTGACGCA AAA----- AAGGTCGATC ATGCTCAGAG ATATATATTT GAAAGAATTA

300
ATCGCTAACA ATTTACTTCA AGTTTGTAAT GTGATAAGTG AAAGACCGTA TATACATACA
TAGCGATTGT TAAATGAAGT TCAAACATTA CACTATTAC TTTCTGGCAT ATATGTATGT

350
CATGTTAATC AACTGATAAC CTTTGTGCCT CGTGTGTCTA GTTACTAGTC AACCATCAAA
GTACAATTAG TTGACTATTG GAAACACGGA GCACACAGAT CAATGATCAG TTGGTAGTTT

400
CGTGCATGAT GCTGTTTTTC TTAGAGTACT ATTGTTGTGT TATATATAAC TAAACATAAA
GCACGTACTA CGACAAAAG AATCTCATGA TAACAACACA ATATATATTG ATTTGTATTT

450
CAATTTGCTA TTATGATATA AACATAGAAT TTTCAAGCAA TGATATGTTT AGATGTTTTG
GTTAAACGAT AATACTATAT TTGTATCTTA AAAGTTCGTT ACTATACAAA TCTACAAAAC

500
TATAAATATT CCATAAATAG TAGACACCCA TATATACACA AACATGAATT CTACCTGAGG
ATATTTATAA GGTATTTATC ATCTGTGGGT ATATATGTGT TTGTACTTAA GATGGACTCC

550
AGAAACACAT AGATGTTCAA ATTAAATAAT AACCCATATA TGAAACTCT AAAGTAAGTA
TCTTTGTGTA TCTACAAAGT TAATTTATTA TTGGGATATT ACTTTTGAGA TTTTATTCAT

600
ATACGAAATA AAAATTTATC CTTTAAATAA CATATAACAT ATATATCAAC TTTAATTGGT
TATGCTTTAT TTTTAAATAG GAAATTTATT GTATATTGTA TATATAGTTG AAATTAACCA

650
AATTGTATCA CAAGAGCCAA TTATTTGGTG ACTGTATCAC ACGTGCTTAA AGAGAGCGTG
TTAACATAGT GTTCTCGGTT AATAAACAC TGACATAGTG TGCACGAATT TCTCTCGCAC

700
GGAATGAAAG TAAAGAAGAA TAAAGAAGCA GAGAGATGGG CTAGAAATGA GAAAACACAC
CCTTACTTTC ATTTCTTCTT ATTTCTTCTT CTCTCTACCC GATCTTTACT CTTTTGTGTG

750
CAAACCTAA CCTCACCTC ACACATTTCT TATCTTTTGC TCTCAATAGA TTCCATTGAT
GTTTGGGATT GGAGTGGGAG TGTGTAAAGA ATAGAAAACG AGAGTTATCT AAGGTAACCTA

800
CAAACCTAA CCTCACCTC ACACATTTCT TATCTTTTGC TCTCAATAGA TTCCATTGAT
GTTTGGGATT GGAGTGGGAG TGTGTAAAGA ATAGAAAACG AGAGTTATCT AAGGTAACCTA

850
CAAACCTAA CCTCACCTC ACACATTTCT TATCTTTTGC TCTCAATAGA TTCCATTGAT
GTTTGGGATT GGAGTGGGAG TGTGTAAAGA ATAGAAAACG AGAGTTATCT AAGGTAACCTA

900
CAAACCTAA CCTCACCTC ACACATTTCT TATCTTTTGC TCTCAATAGA TTCCATTGAT
GTTTGGGATT GGAGTGGGAG TGTGTAAAGA ATAGAAAACG AGAGTTATCT AAGGTAACCTA

Fig. 1a

950
TCAAAACAAA ATTTTCATTA AGATTTTACA ACCTCCACAC ACTTCCAAAC ACAATTAAAG
AGTTTTGTGT TAAAAGTAAT TCTAAAGTGT TGGAGGTGTG TGAAGGTTTG TGTTAATTTT

1000
AGAGGAAAAA GAATCAATAA CCCTATAAAT AAAAAATCAG ACAAACAGAA GTTTCCTCTT
TCTCCTTTTT CTAGATTATT GGGATATTTA TTTTITAGTC TGTTTGTCTT CAAAGGAGAA

1050
CTTCTTCCTT AAGCTAGTAC CTTTTGTCTT TGAAATTAGG GTTAATTTCT TTTTCCAAA
GAAGAAGGAA TTCGATCATG GAAAACAAGA ACTTTAATCC CAATTAAAGA AAAAAGGTTT

1100
TACCATCAAT TCTCCAGACC ATAAAACTC AAAAAGATCA GATCTTTCCT CTGAAAAAGA
ATGGTAGTTA AGAGGTCTGG TATTTTTGAG TTTTCTAGT CTAGAAAGGA GACTTTTTCT

1150
GATACCCAAC TTATGTTTTT GTGTGTCTGT ATATAGATAA ACATTACATA CCCATATTG
CTATGGGTG AATACAAAAA CACACAGACA TATATCTATT TGTAATGTAT GGGTATAAAC

1200
TGTATAGACA TAAAAAGTGG AAATTAAGGT AACAAAAAGA AATGGGAAGA GGAAGAGTAG
ACATATCTGT ATTTTTCACC TTAATTCCA TTGTTTTCT TACCCTTCT CCTTCTCATC

1250
AGCTGAAGAG GATAGAGAAC AAAATCAACA GACAAGTAAC GTTTCGAAAG CGTAGGAACG
TCGACTTCTC CTATCTCTTG TTTAGTTGT CTGTTTCATT CAAACGTTT GCATCCTTGC

1300
GTTTGTGAA GAAAGCTTAT GAATTGTCTG TTCTCTGTGA TGCTGAAGTT GCTCTCATCA
CAAACAATT CTTTCGAATA CTTAACAGAC AAGAGACACT ACGACTTCAA CGAGAGTAGT

1350
TCTTCTCCAA CCGTGGAAG CTCTATGAGT TTTGCAGCTC CTCAAAGTAA ACAACTCTCT
AGAAGAGGTT GGCACCTTTC GAGATACTCA AAACGTCGAG GAGTTTCATT TGTTGAGAGA

1400
CACTCTTTAT CAGTTTCTTG ATTGAGTTT TGCTAGATCT GAGCTTAGAT CTTTGTCTCA
GTGAGAAATA GTCAAAGAAC TAACTCAAAA ACGATCTAGA CTCGAATCTA GAAACAGAGT

1450
AGGACTTGTT ATATATAGAT CACACGATCT TGATTCTAC GAAGTTGAGT TAATTAGATT
TCCTGAACAA TATATATCTA GTGTGCTAGA ACTAAAGATG CTTCAACTCA ATTAATCTAA

1500
TCTTGATTTC ATTTTCTAGG GTTTTTTCC AATTCTTGAA ATTTAAGATC TGTTTTTTTT
AGAACTAAAG TAAAAGATCC CAAAAAAGG TTAAGAACTT TAAATTCTAG ACCAAAAAA

1550
GTTGTCAATG ATTTAGAACT GTGAATTTG TAATCGAATA GATTCCAAAT CCTGATATGC
CAACAGTTAC TAAATCTTGA CACTTAAAC ATTAGCTTAT CTAAGGTTTA GGACTATACG

1600
AATCTGAAAA GTTTTATATA ATTAATATAT GTCTGTGTGA TTGGAACTT AAAAGTTGGA
TTAGACTTTT CAAAATATAT TAATTATATA CAGACACACT AACCTTTGAA TTTTCAACCT

1650
ATCACAGATT TCTATGAAAA TTACAAGTAT CCAACGTAGA ATTGATAATA TATGGTTACA
TAGTGTCTAA AGATACTTTT AATGTTTATA GGTTGCATCT TAACTATTAT ATACCAATGT

1700
TGCATTAACC ATTTGTTAGT TCATCATACT TTATGGTGGT TAAAACTTCA AACGCGTGTA

1750
TGCATTAACC ATTTGTTAGT TCATCATACT TTATGGTGGT TAAAACTTCA AACGCGTGTA

1800
TGCATTAACC ATTTGTTAGT TCATCATACT TTATGGTGGT TAAAACTTCA AACGCGTGTA

Fig. 1b

ACGTAATTGG TAAACAATCA AGTAGTATGA AATACCACCA ATTTTGAAGT TTGCGCACAT

1900
TATCTATGAA GCCAAAGATT GTTTGTTTTT TCTTAAAAAC AATGTTTAAT AGATTTTTTAA
ATAGATACTT CCGTTTCTAA CAAACAAAAA AGAATTTTGT TTACAAATTA TCTAAAAATT

1950
TTATATGTTA AAATAGTTTT GCTTACATGC ATTCAAGAAA ATATAGCGAT TAATTCCTTT
AATATACAAT TTTATCAAAA CGAATGTACG TAAGTTCTTT TATATCGCTA ATTAAGGAAA

2000
TTTCAAATCA CAATTTGTGA ATCAAACGAA AACGTAAGAT ATTGCTTGCA AATGATAGGA
AAAGTTTAGT GTTAAACACT TAGTTTGCTT TTGCATTCTA TAACGAACGT TTAATATCCT

2050
TTGAACTATT GATATTTGTA AATATAAATA CGAAACTTTA CGTTTGAAAG TTGAAACAAT
AACTTGATAA CTATAAACAT TTATATTTAT GCTTTGAAAT GCAAACTTTC AACTTTGTGA

2100
CAAATCCAAA TCAACTCGTA TATAATCAGA TAAATAATGG AAACAATCTT CAATTTTGAT
GTTTAGGTTT AGTTGAGCAT ATATTAGTCT ATTTATTACC TTTGTTAGAA GTTAAACTA

2150
GGAAGAATAC TTAAAACTT GAAGAGCTTT TTTTTTTTAT GGTGATTTAT AGGTTTAGAT
CCTTCTTATG AAATTTTGAA CTTCTCGAAA AAAAAAATA CCACTAAATA TCCAAATCTA

2200
CTCCAAAGTC AAGTATGATC TTTTAAATAA ACTCTTATTC TCTCTTTTG AGTTATTTTC
GAGGTTTCAG TTCATACTAG AAAAATTATT TGAGAATAAG AGAGAAAAAC TCAATAAAAG

2250
AGCATGCTCA AGACACTTGA TCGGTACCAG AAATGCAGCT ATGGATCCAT TGAAGTCAAC
TCGTACGAGT TCTGTGAAC TCCCATGGTC TTTACGTCGA TACCTAGGTA ACTTCAGTTG

2300
AACAAACCTG CCAAAGAACT TGAGGTGTTT TTAATTCAAA TACTATTTTG AGTTCCTATC
TTGTTTGGAC GGTTCCTTGA ACTCCACAAG AATTAAGTTT ATGATAAAAC TCAAGGATAG

2350
ATATCATTTT AAGAAAGATC TTTTTTTTTT AAAGTTTGTT TTCGTGAAAT ATTTCAGAAC
TATAGTAAAG TTCTTTCTAG AAAAAAAAT TTTCAAACAA AAGCACTTTA TAAAGTCTTG

2400
AGCTACAGAG AATATCTGAA GCTTAAGGGT AGATATGAGA ACCTTCAACG TCAACAGAGG
TCGATGTCTC TTATAGACTT CGAATCCCA TCTATACTCT TGGAAAGTTG AGTTGTCTCC

2450
TACATATCTA TCTATACCTC CATATATTTA CTCAATTCTG TATCCATGTA GATTCATATT
ATGTATAGAT AGATATGGAG GTATATAAAT GAGTTAAGAC ATAGGTACAT CTAAGTATAA

2500
TGTAAGGTGT TGTGGCTTTT GTTGGTGCAG AAATCTTCTT GGGGAGGATT TAGGACCTTT
ACATCCACAC ACACCGAAAA CAACCACGTC TTTAGAAGAA CCCCTCCTAA ATCCTGAAAA

2550
GAATTCAAAG GAGTTAGAGC AGCTTGAGCG TCAACTGGAC GGCTCTCTCA AGCAAGTTCC
CTTAAGTTTC CTCAATCTCG TCGAACTCGC AGTTGACCTG CCGAGAGAGT TCGTTCAAGC

2600
GTCCATCAAG GTATCTTTAT GCATGGAATC AATGATTCAA ATGAGATTAA TTTGTGTTGT
CAGGTAGTTC CATAGAAATA CGTACCTTAG TTAATAAGTT TACTCTAATT AAACACAACA

2650
2700
2750

Fig. 1c

2800
TTAATTATAC TACTATGGTG GTATGATGAT TGTTTGCAGA CACAGTACAT GCTTGACCAG
AATTAATATG ATGATACCAC CATACTACTA ACAAACGTCT GTGTCATGTA CGAATCGGTC

2850
CTCTCGGATC TTCAAAATAA AGAGCAAATG TTGCTTGAAA CCAATAGAGC TTTGGCAATG
GAGAGCCTAG AAGTTTTATT TCTCGTTTAC AACGAACTTT GGTTATCTCG AAACCGTTAC

2900
AAGGTATAAT TACAGAATAA ATGCATTTGG TGAATTGCGA TCAATCTCTT TCACAGAGTT
TTCCATATTA ATGTCTTATT TACGTAAACC ACTGAACGCT AGTTAGAGAA AGTGTCTCAA

2950 3000
TAAGTTTCTA AATATGTTTT GAAACATCTC TAGTTTTCTT GTTTCTGATT ATAGTCTTTT
ATTCAAAGAT TTATACAAAA CTTTGTAGAG ATCAAAAGAA CAAAGACTAA TATCAGAAAA

3050
GGTGAAATGT AAATGTTTAG CTGGATGATA TGATTGGTGT GAGAAGTCAT CATATGGGAG
CCACTTTACA TTTACAAATC GACCTACTAT ACTAACCACA CTCTTCAGTA GTATACCCTC

3100
GATGGGAAGG CGGTGAACAG AATGTTACCT ACGCGCATCA TCAAGCTCAG TCTCAGGAC
CTACCCTTCC GCCACTTGTC TTACAATGGA TGCGCGTAGT AGTTCGAGTC AGAGTCCCTG

3150
TATACCAGCC TCTTGAATGC AATCCAATC TGCAAATGGG GTAAATCTGC CTTGAAAAAT
ATATGGTCGG AGAAGTTACG TTAGGTTGAG ACGTTTACCC CATTTAGACG GAACTTTTTA

3200
CATCTGCAAA TCAGTTTGTG TACTTAACTA CTAAGATTGT CCTTATTTAA GGTCTTTTGA
GTAGACGTTT AGTCAAACAC ATGAATTGAT GATTCTAACA GGAATAAATT CCAAGAAATC

3250 3300
TTGCTTGGTG TAAAGAGGAT CATCAATGTG TGTGAACCTT CTAAGTTGAT GTTTTGGCGA
AACGAACCAC ATTTCTCCTA GTAGTTACAC ACACTTGGAA GATTCAACTA CAAAACCGCT

3350
TGATGATGAT GATGCAGGTA TGATAATCCA GTATGCTCTG AGCAAATCAC TGCGACAACA
ACTACTACTA CTACGTCCAT ACTATTAGGT CATACGAGAC TCGTTTGTAGT ACGCTGTTGT

3400
CAAGCTCAGG CGCAGCCGGG AAACGGTTAC ATTCCAGGAT GGATGCTCTG AGAATCATGT
GTTTCGAGTCC GCGTCGGCCC TTTGCCAATG TAAGGTCCTA CCTACGAGAC TCTTAGTACA

3450
ACTGTGATGA AGCTCACCCA CAAAAGACCT TATATATATA TAAAGTATAG ATACAAGACT
TGACACTACT TCGAGTGGGT GTTTTCTGGA ATATATATAT ATTTTCATATC TATGTTCTGA

3500
TGGATTTGTA GACATAAGTG GCTAATATAA TGGTCCTGAG GATCTTCTAG ACATTTGTAT
ACCTAAACAT CTGTATTCAC CGATTATATT ACCAGGACTC CTAGAAGATC TGTAACATA

3550 3600
CTTTTGGGAA TCCTTGCTTA TATTAAGAAT TCAAATGTGT GGAACCTGTT TTAACACTGA
GAAAACCTT AGGAACGAAT ATAATTCTTA AGTTTACACA CCTTGAACAA AATTGTGACT

3650
ACCATGACAC TGGTTTATTA TCATGTAATG AGAGAAACAT TTGGGTTACA ATGTGATCTC
TGGTACTGTG ACCAAATAAT AGTACATTAC TCTCTTTGTA AACCCAATGT TACACTAGAG

3700
TCCTTGACCC AAATACACAA TATAAACCTT ATGCCAAAAT ACAAGCATCA CATATATATA

Fig. 1d

09069582.022802

AGGAACTGGG TTTATGTGTT ATATTTGGGA TACGGTTTTA TGTTCGTAGT GTATATATAT

3750
TTCATAAAAG GTTTAAGTAA TCATACAAAT GATGTAAAAA GTTTCATGCC TTGAACAAAA
AAGTATTTTC CAAATTCATT AGTATGTTTA CTACATTTTT CAAAGTACGG AACTTGTTTT

3800
CACTGCGCCA AAGGCAAATG GTAAGAAACA TGTCAGATTC CTGTGTGCAT CTGTTTTGCT
GTGACGCGGT TTCCGTTTAC CATTCCTTGT ACAGTCTAAG GACACACGTA GACAAAACGA

3850 3900
GCTGCTGCTG TTGTTATCTC TCAAGAGGGT TTCCTCAGAA CTCCATAAGC CAAACGTGCA
CGACGACGAC AACAATAGAG AGTTCCTCCA AAGGAGTCTT GAGGTATTCTG GTTTGCACGT

3950
GAGAGACGTT TCCTCATTC CCGATCGTAT ACAATACCAT ATATTGTTAA AAAAAAGATA
CTCTCTGCAA AGGAGTAAGG GGGTAGCATA TGTTATGGTA TATAACAATT TTTTCTCTAT

4000
TCACAGATCA AATCAATTTG CACATCTCTC TGCTGCCTTG TCAATCTCCT CAGGTCCGGT
AGTGTCTAGT TTAGTTAAAC GTGTAGAGAG ACGACGGAAC AGTTAGAGGA GTCCAGGCCA

4050
CAAGGCAGAT CAAGACAGGA TCAATGGCAA CAAGTTACGG TGTTCGTTG AACTCCATCA
GTTCCGTCTA GTTCTGTCTT AGTTACCGTT GTTCAATGCC ACAAAGCAAC TTGAGGTAGT

4100
CCTGCAAATG AGACGAATTC ACAGCAGAGA AAAAAATATT CTTTAGTCAA CATGAATGAG
GGACGTTTAC TCTGCTTAAG TGTGCTCTCT TTTTTTATAA GAAATCAGTT GTACTTACTC

4150 4200
AAATAATTCA AATGTTCTGA GTTTCAGGAA GAATGATTAG CCATATTTGT ACTAGACAAG
TTTATTAAGT TTACAAGACT CAAAGTCCTT CTTACTAATC GGTATAACA TGATCTGTTC

4250
ACAAGTAAAG ATTTTACGCA TGTGCTTCTA GGGTTGTTGT ACATCTTTCA TTCTATTGAT
TGTTCAATTC TAAAATGCGT ACACGAAGAT CCCAACAACA TGTAGAAAGT AAGATAACTA

4300
CTCTGGATCA CTCGTCTATT TATGCGTGAT GGTGTCTGAG TCTGACTCTG AAACACTAGT
GAGACCTAGT GAGCAGATAA ATACGCACTA CCACAGACTC AGACTGAGAC TTTGTGATCA

4350
AAATGAGAAG CCGAAAATG GCTTGGAAGA ACATGAAAAG TGTTTACCTT TCCACAAACA
TTTACTCTTC GGCTTTTGAC CGAACCTTCT TGTACTTTTC ACAAATGGAA AGGTGTTTGT

4400
GGGCAGTTTT CACTTCTCTC CATCCATTCA TAAATGCAAC TAAGGTGGAA ATGGTGAGAA
CCCGTCAAAA GTGAAGAGAG GTAGGTAAGT ATTTACGTTG ATTCCACCTT TACCCTCTT

4450 4500
CACTTTGTAA CAATCTTCGG GTTCTCTGAT ATGTATTCTA CAAAACACAC GAAATAATCT
GTGAAACATT GTTAGAAGCC CAAGAGACTA TACATAAGAT GTTTTGTGTG CTTTATTAGA

GATACTAAGC TT
CTATGATTCTG AA

Fig. 1e

-1104
TGATAGCGCT TCGTTCATCA TGCAGAAGAA ACCAATGTTT CCCC AATCTC
ACTATCGCGA AGCAAGTAGT ACGTCTTCTT TGGTTACAAA GGGGTTAGAG

-1054
ACGCGCCTCC TCCTATCTAC CACCACTTGG ACAAATCCCC TTTGCAGTAT
TGCGCGGAGG AGGATAGATG GTGGTGAACC TGTTTAGGGG AAACGTCATA

-1004
TCGTTTTTTT TTCCGGACAT TGTACATTCA AAAGCATTCC AAGTGTCTAA
AGCAAAAAAA AAGGCCTGTA ACATGTAAGT TTTGTAAGG TTCACAGATT

-954
TAAACATAAC TAACCACTCC AAGATGCAAA ATCTAGCTAC GACGAACAAA
ATTTGTATTG ATTGGTGAGG TTCTACGTTT TAGATCGATG CTGCTTGTTT

-904
TTTTAAACTA TAGAGATGAA CTTTAAATTC GGGCATTAAAT TAGTGGAACCT
AAAATTTGAT ATCTCTACTT GAAATTTAAG CCCGTAATTA ATCACCTTGA

-854
TGAGCTATTG ATGATCGAGT TTTCTGACTT TTTGAAGCTT AAGCTTAATT
ACTCGATAAC TACTAGCTCA AAAGACTGAA AAACCTCGAA TTCGAATTAA

-804
GAGTTTTATA TACACTATAT AGGCTTGTAAT TAATATGGAT CAAACAAGAA
CTCAAAATAT ATGTGATATA TCCGAACATT ATTATACCTA GTTTGTTCTT

-754
AAATACAAAC TACAAATTGG GAATTGGGTT TTAAACGTT ATCGTTCTAT
TTTATGTTTG ATGTTTAACC CTTAACCCAA AATTTTGCAA TAGCAAGATA

-704
TTTAATTCAG GCACGTACCT TTAGAATATC AAGATCCATG TTTCAATATT
AAATTAAGTC CGTGCATGGA AATCTTATAG TTCTAGGTAC AAAGTTATAA

-654
TCTGTTGACA AATAAATAAA GATGTCTCAA ATATAAGTTG GGCAACGTAC
AGACAACTGT TTATTTATTT CTACAGAGTT TATATTCAAC CCGTTGCATG

-604
GTGTAGACCT AAAAGAGTCG AAACATTGGT ATCTAAGTTA TATATCTACA
CACATCTGGA TTTTCTCAGC TTTGTAACCA TAGATTCAAT ATATAGATGT

-554
TGGATTATAT AACAAGACAA CGTTTGTTTT AAAA ACTTCA TTGATTTTTT
ACCTAATATA TTGTCTGTT GCAAACAAA TTTTGAAGT AACTAAAAAG

-504
TTAATTAGTA GCAACTAGCA ACTAACTACT CATGGCAAAT AATGGCGTCT
AATTAATCAT CGTTGATCGT TGATTGATGA GTACCGTTTA TTACCGCAGA

-454
GCGTGGCAGC CGACTTGGA GAGAAGGTGT GAGAATGTTT TTACTTTCTG
CGCACCGTGC GCTGAACCT CTCTCCACA CTCTTACAAA AATGAAAGAC

-404

Fig. 2a

09869582.022802

TGTAAAAGAT GGAAGAGAGA GAAAGAGTAA AGAAGTAGAG AGAGAGATAT
ACATTTTCTA CCTTCTCTCT CTTTCTCAT TCTTCATCTC TCTCTCTATA

-354

TGTATCACCA AACCTAATG ATCTCTCACC CTCACAAATT TTCTTATCTT
ACATAGTGGT TTGGGATTAC TAGAGAGTGG GAGTGTTTAA AAGAATAGAA

-304

TATAGCTTTT ATAGATTCAC AAAAAGCTTT CTTCAGATTC ACAATCTCAT
ATATCGAAAA TATCTAAGTG TTTTGAAGAA GAAGTCTAAG TGTTAGAGTA

-254

CACAACCTT CAAAAAGAGA AAAGATCTAA AGAATAAACA AGAGCCCTAA
GTGTTGGGAA GTTTTCTCT TTTCTAGATT TCTTATTGT TCTCGGGATT

-204

TATCAATCA CAACCAAAAA AACCAAGAA AGCTAATTAA AGTTTCTCT
ATAGTTTAGT GTTGGTTTTT TTGGTTTCT TCGATTAAAT TCAAAAGAGA

-154

CTAGCTATTC CTCTCTTTT CTTGTTCTTG AAAAGTAGGG TTTACTTCAC
GATCGATAAG GAGAAGAAAA GAACAAGAAC TTTTGATCCC AAATGAAGTG

-104

CAAAAAGATA AGATCTTTCC CCAGAAAAAG CAATACCCAA GTCATGTTTC
GTTTTCTAT TCTAGAAAGG GGTCTTTTTC GTTATGGGTT CAGTACAAAG

-54

TGTGTGTCTG TATATAGATA AAACATTACA TACCCTAATA AGGTTACACA
ACACACAGAC ATATATCTAT TTGTAATGT ATGGGATTAT TCCAATGTGT

-4

AATAGCTATA AAAGAGGGAA AATAAGATAG GGATTTTTTG GGGTGAGGAA
TTATCGATAT TTTCTCCCTT TTATTCTATC CCTAAAAAAC CCCACTCCTT

47

AGATGGGAAG AGGAAGAGTA GAGCTCAAGA GGATAGAGAA CAAAATCAAC
TCTACCTTTC TCCTTCTCAT CTCGAGTTCT CCTATCTCTT GTTTTAGTTG

97

AGACAAGTGA CGTTTGCTAA ACGTAGAAAT GGTTCGTGA AAAAAGCTTA
TCTGTTCACT GCAAACGATT TGCATCTTTA CCAAAGCACT TTTTTCGAAT

147

TGAGCTTTCT GTTCTCTGCG ATGCTGAAGT CTCTCTCATC GTCTTCTCCA
ACTCGAAAGA CAAGAGACGC TACGACTTCA GAGAGAGTAG CAGAAGAGGT

197

ACCGTGGCAA GCTCTACGAG TTCTGCAGCA CCTCCAAGTA CTTCTCTTTC
TGGCACCGTT CGAGATGCTC AAGACGTCGT GGAGGTTTCT GAAGAGAAAG

247

TTTATACACT TATTAGATCT GTGTGTAGAT CTTTCATTTT TTCTAGTCTT
AAATATGTGA ATAATCTAGA CACACATCTA GAAAGTAAAA AAGATCAGAA

297

GTGATGAGTT TTATCTTTCT TGATTGCTTT TTAACAAAAT ACTTGATATA

Fig. 2b

09869582-022802

CACTACTCAA AATAGAAAGA ACTAACGAAA AATTGTTTTA TGA ACTATAT

347
TTTTCAAGTTT CTTAATCTGA CTCTAATTAG GTTTTGATTA ATAGGAAGGA
AAAAGTCAAA GAATTAGACT GAGATTAATC CAAAACATAAT TATCCTTCCT

397
AATAAATCCA GGTACCTTTC AAGGTGAATT G-----GAG ATCTGATCTT
TTATTTAGGT CCATGGAAAG TTCCACTTAA C-----CTC TAGACTAGAA

447
AATTTAATCA TCATGTCAAA TTCTTAGGGA TTTAATTGCA ATCTATTTT
TTAAATTAGT AGTACAGTTT AAGAATCCCT AAATTAACGT TAGATAAAAA

497
AGATTTATCG GAGCTAGGAA AGTATCATAA TGATATACTA TTATTATCAT
TCTAAATAGC CTCGATCCTT TCATAGTATT ACTATATGAT AATAATAGTA

547
GTAATTTTCAT TGTCTCTACA CGGATATATA TGTGATTAGA ACTTGGTAAA
CATTAAAGTA ACAGAGATGT GCCTATATAT AACTAATCT TGAACCATTT

597
GTAAACTAAA GATTCACAGT CTTCAATGAA ATTGAAAAGA TCCAACGTAG
CATTTGATTT CTAAGTGTC AAGTTACTT TAACTTTTCT AGGTTGCATC

647
AATAATTAGT GGTTCATGC ATTAACCAGT CTAATTAAAG CTCATGCAGA
TTATTAATCA CCAAGGTACG TAATTGGTCA GATTAATTC GAGTACGTCT

697
CATTTAAGCA CCACATGAAT TTAATATCTT TTTAATTAAG GGATCTTCTT
GTAAATTCGT GGTGTACTTA AATTATAGAA AAATTAATTC CCTAGAAGAA

747
TTTATAAATT TTCTTTTGTT AGCTTTTAAA ATTTTAGTTT GTTCATTAAA
AAATATTTAA AAGAAAACAA TCGAAAATT TAAAATCAAA CAAGTAATTT

797
ATTTATAGAT CCTCCTCTCC TGATTTGTGT TTTCCGATCC TTTCCAGCAT
TAAATATCTA GGAGGAGAGG ACTAAACACA AAAGGCTAGG AAAGGTCCTA

847
GCTCAAGACA CTGGAAAGGT ATCAGAAGTG TAGCTATGGC TCCATTGAAG
CGAGTTCTGT GACCTTTCCA TAGTCTTCAC ATCGATACCG AGGTAACCTC

897
TCAACAACAA ACCTGCTAAA CAGCTTGAGG TTTAATCTCC AACATCTCTT
AGTTGTTGTT TGGACGATTT GTCGAACTCC AAATTAGAGG TTGTAGAGAA

947
CGATCTTAAT TATTTATCCT TTTTAAATTT TATCTAAAGA AAATGTTTGA
GCTAGAATTA ATAAATAGGA AAAAATTAAA ATAGATTCTT TTTACAACT

997
TTTTGAGACA AAAGCCCTTC AAAGTTTCTT ACATAGATAT TCAATTGTCT
AAAACCTCTG TTTGGAAGG TTCAAAGAA TGTATCTATA AGTTAACAGA

Fig. 2c.

09869582-022602

09869582-022002

1047
ATTATCTTCG CAATTTTCAG AACAGCTACA GAGAGTACTT GAAGCTGAAA
TAATAGAAGC GTTAAAAGTC TTGTCGATGT CTCTCATGAA CTTCGACTTT

1097
GGTAGATATG AAAATCTGCA ACGTCAGCAG AGGTATATAC ATTAATGTGG
CCATCTATAC TTTTAGACGT TGCAGTCGTC TCCATATATG TAATTACACC

1147
ATGATGATCA TTTATAAACA GCATATATAT ATATATATAT ATATATATAT
TACTACTAGT AAATATTTGT CGTATATATA TATATATATA TATATATATA

1197
ATATAGAAAAG TATTGATCAT GAAAGTGTGT TGCAGCAGAA ATCTTCTTGG
TATATCTTTC ATAAC TAGTA CTTTCACACA ACGTCGTCTT TAGAAGAACC

1247
AGAGGATCTT GGACCTCTGA ATTCAAAGGA GCTAGAGCAG CTTGAGCGTC
TCTCCTAGAA CCTGGAGACT TAAGTTTCCT CGATCTCGTC GAACTCGCAG

1297
AACTAGACGG CTCTCTGAAG CAAGTTCGCT GCATCAAGGT GATTTACTTC
TTGATCTGCC GAGAGACTTC GTTCAAGCGA CGTAGTTCCA CTAAATGAAG

1347
TGTACATACA CTGAAAGATT CACACAAATC TTTCTCTATA TATAGACTGA
ACATGTATGT GACTTTCTAA GTGTGTTTAG AAAGAGATAT ATATCTGACT

1397
GACACATGCA TGAAATGTTT TTGATGCGTG AGGTTATCTG AAAATGCCTC
CTGTGTACGT ACTTTACAAA AACTACGCAC TCCAATAGAC TTTTACGGAG

1447
TTCTTTTTTG CAGACACAGT ATATGCTTGA CCAGCTCTCT GATCTTCAAG
AAGAAAAAC GTCTGTGTCA TATACGAAC TGTGAGAGA CTAGAAGTTC

1497
GTAAGGAGCA TATCTTGCTT GATGCCAACA GAGCTTTGTC AATGAAGGTA
CATTCCTCGT ATAGAACGAA CTACGGTTGT CTCGAAACAG TTACTTCCAT

1547
TATGATGATG TTTCTCTCTC TCTCCTCCAG TTTCTATTTA TAGATGGAAA
ATACTACTAC AAAGAGAGAG AGAGGAGGTC AAAGATAAAT ATCTACCTTT

1597
CTTTAAATAG TCCAATTTAT ATATATGAGT CTAAATTTCA CATTCTTCAA
GAAATTTATC AGGTTAAATA TATATACTCA GATTTAAAGT GTAAGAAGTT

1647
CTGCTACATG TTTCTTTTGT ATTATTTCTA TGATATCTTC AGGAAAGTTT
GACGATGTAC AAAGAAAACA TAATAAAGAT ACTATAGAAG TCCTTTCAAA

1697
GAAAAATATT GTGTTTTGTT TAGCTGGAAG ATATGATCGG CGTGAGACAT
CTTTTATATA CACAAAACAA ATCGACCTTC TATACTAGCC GCACTCTGTA

Fig. 2d

1747
CACCATATAG GAGGAGGATG GGAAGGTGGT GATCAACAGA ATATTGCCTA
GTGGTATATC CTCCTCCTAC CCTTCCACCA CTAGTTGTCT TATAACGGAT

1797
TGGACATCCT CAGGCTCATT CTCAGGGACT ATACCAATCT CTTGAATGTG
ACCTGTAGGA GTCCGAGTAA GAGTCCCTGA TATGGTTAGA GAACCTACAC

1847
ATCCCACTTT GCAAATTGGG TAAATCAAAC AACTTTTCTT GCTTTAAGAC
TAGGGTGAAA CGTTTAACCC ATTTAGTTTG TTGAAAAGAA CGAAATTCTG

1897
ATCAACTTAG GTTATAAACA GTTAGCAGTT TGCTTTAAGC CCAACATTGT
TAGTTGAATC CAATATTTGT CAATCGTCAA ACGAAATTCG GGTGTAAACA

1947
CTTTGTTTCA TAGAGGCTTT GGTAAAACT CGTGTGTGTT AGTCTAAGGA
GAAACAAAGT ATCTCCGAAA CCAATTTTGA GCACAACAAA TCAGATTCTT

1997
TTCAGCACTT TGATGTCTGA AGTATGGAAA ATCAATCTCT CAGACTTGAA
AAGTCGTGAA ACTACAGACT TCATACCTTT TAGTTAGAGA GTCTGAACCT

2047
AATGTGGGTT TCTATTGTTG ACTTCGAAAC TATGTTGTTG TGGTGTGCA
TTACACCCAA AGATAACAAC TGAAGCTTTG ATACAACAAC ACCACAACGT

2097
AACAGATATA GCCATCCAGT GTGCTCAGAG CAAATGGCTG TGACGGTGCA
TTGTCTATAT CGGTAGGTCA CACGAGTCTC GTTTACCGAC ACTGCCACGT

2147
AGGTCAGTCC CAACAAGGAA ACGGCTACAT CCCTGGCTGG ATGCTGTGAG
TCCAGTCAGG GTTGTTCCTT TGCCGATGTA GGGACCGACC TACGACACTC

2197
CGATACTTCT TCCCCAATA AAGATCTTAA GCAAGTACTG GTGGGGTCTT
GCTATGAAGA AGGGGGTTAT TTCTAGAATT CGTTCATGAC CACCCAGAA

2247
CGTGGTGTGA TCTTAGATCT TATGCATATG AATAATAATG TTATTGCACA
GCACCACACT AGAATCTAGA ATACGTATAC TTATTATTAC AATAACGTGT

2297
AGACTTTTGC TTTTGTAGAC ACAAGTGGCT ATAGCTGTAA TAGCCTTCAA
TCTGAAAACG AAAACATCTG TGTTACCGA TATCGACATT ATCGGAAGTT

2347
CATCTCTCTT CTGTTTCAGG ATTTGTTTGT GCCTATTGTA ATTGCTTATA
GTAGAGAGAA GACAAAGTCC TAAACAAACA CGGATAACAT TAACGAATAT

2397
TATGTATGGT TTGTATAATG TGTGAAATGT TAACATCGAC CATGTCTCAT
ATACATACCA AACATATTAC AACTTTTACA ATTGTAGCTG GTACAGAGTA
CTGGTGAAGA TCTTATCCTG TCTATGCATG ATACCAAAA

Fig. 2e

09869582-022802

WO 00/23578

11 / 43

09/869582

PCT/US99/24407

GACCACTTCT AGAATAGGAC AGATACGTAC TATGGTTTT

00869582.022002

Fig. 2f

Sequence Range: 1 to 14940

50
TAAAATCTGG AAGTTTCCAG CCCTGATAAT GTTGCAGAAT AAATTAGTGC GCAGTAAGTC
ATTTTAGACC TTCAAAGGTC GGGACTATTA CAACGTCTTA TTTAATCAGC CGTCATTACG

100
TCCAAAAAGA GAGAACTAC AAATAAATAA ACCAAGTCAA ATTCATTAAAC AAGGAGAACA
AGGTTTTTCT CTCTTTGATG TTTATTATT TGGTTCAGTT TAAGTAATTG TTCCTCTTGT

150
GCATGAAATG TTTCCCAAC ACACAAATC TTGACTAGCC AACAGCGCTT CAAATGAGGA
CGTACTTTAC AAAGGGTTG TGTGTTTAG AACTGATCGG TTGTCGCGAA GTTACTCTCT

200
AGTAACTAAT TTCAGTAGCT TGGGTATGGT GAAGTATAAT TACCTTCCAC CACACATATC
TCATTGATTA AAGTCATCGA ACCCATACCA CTTCATATTA ATGGAAGGTG GTGTGTATAG

250 300
CGTAGCCTAT CACCCCAACG ATAATGATCA AACCATAGTT TCTACCACCT GTACATTGAA
GCATCGGATA GTGGGGTTGC TATTACTAGT TTGGTATCAA AGATGGTGGA CATGTAACCT

350
GGAAAGTGT AACTGTTTTT TTCCGAATTT AGATCAACAG TAAACAAAGA ATGGTGTTAC
CCTTTCACAA TTGACAAAG AAGGCTTAA TCTAGTTGTC ATTTGTTTCT TACCACAATG

400
TCTAAGTCTC TAATGTAATG CCTTCCTAAA TGCTACAAAG AAAAGCCACT TATCAGAACA
AGATTCAGAG ATTACATTAC GGAAGGATTT ACGATGTTTC TTTTCGGTGA ATAGTCTTGT

450
AAGTATGTCT TGTTTGATGC GAGAAAAGTA GCAAAAGAGA ATAAAACCTG AAATATAATT
TTCATACAGA ACAAACACG CTCTTTTCAT CGTTTTCTCT TATTTTGAC TTTATATTAA

500
TCAAAATACA ATGTCTAGAA ATCTAAGTGT GCAAATCCTT TATTCAAGTT TCATATCAAA
AGTTTTATGT TACAGATCTT TAGATTCACA CGTTTAGGAA ATAAGTTCAA AGTATAGTTT

550 600
CCAATTTTGA CATTTCTAGT GCAGAACAGA AAACAAAAC TCAATATAAA AAAATATAAA
GGTTAAACT GTAAAGATCA CGTCTTGTCT TTTGTTTGA AGTTATATTT TTTTATATTT

650
AACTCCAGAG GACCTGATCC TGAAGGTGAA ACAATGGTGA TAGGTCTGTT TGACCCACAGC
TTGAGGTCTC CTGGACTAGG ACTTCCACTT TGTTACCACT ATCCAGACAA ACTGGGGTCG

700
AACTGTATCT CATGCCTAAG ACTGTTAACC TACAAAATA AATAGAGCTC AGGCAAGAAA
TTGACATAGA GTACGGATTC TGACAATTGG ATGTTTTTAT TTATCTCGAG TCCGTTCTTT

750
CTATTGATTC ACGATAAATC TATGTCCTCA GCAAGTCTAT ATTATCCAGC TCCATCCGAT
GATAACTAAG TGCTATTTAG ATACAGGAGT CGTTCAGATA TAATAGGTG AGGTAGGCTA

800
AGCTTATCAT CGCCAATAGA TTAATGTGAA ACTTACCTGG GCCACAAGTA CATCATCGTG
TCGAATAGTA GCGGTTATCT AATTACACTT TGAATGGACC CGGTGTTTCA GTAGTAGCAC

850 900
GGGTTTGCTA GCTGATTTGC TAGGTCGTC TTGTTTCAGT TGCCTGAATA CCATCTGTCC
CCCAAACGAT CGACTAAACG ATCCAAGCAG AACAAAGTCA ACGGACTTAT GGTAGACAGG

Fig. 3a

09869582.022802

950
ACATAAACAA AACCCATTGC CTCATTTTGC CAAACCGCAT CATAACATG TGAAGTCGCC
TGTATTTGTT TTGGGTAACG GAGTAAAACG GTTTGGCGTA GTATGTGTAC ACTTCAGCGG

1000
AAAGCTTTTG CACAATATAG AAATTAGAAT ACCTTAAAAG CACCAGAAAC CAAATTGGAG
TTTCGAAAAC GTGTTATATC TTTAATCTTA TGAATTTC GTGGTCTTG GTTTAACCTC

1050
ACATCTGGTA AGCCCCCTTC TTTAGAAAAT GCTGATCCAA TAAGACCTTA AAGTAACATT
TGTAGACCAT TCGGGGAAG AAATCTTTTA CGACTAGGTT ATTCTGGAAT TTCATTGTAA

1100
TGCAAAAATC ACAGTATAGT TAGTAATTGC AGTAACTTGG ACGAACATTA AGCATGTACA
ACGTTTTTAG TGTCAATCA ATCATTAACG TCATTGAACC TGCTTGTAA TCGTACATGT

1150 1200
CGAAATCAAT CGACTCAGCA AGTTCACAAT AATTGTACTA GTAGGTGCAT TCACAGAGAA
GCTTTAGTTA GCTGAGTCGT TCAAGTGTTA TTAACATGAT CATCCACGTA AGTGTCTCTT

1250
ACTAAACATA AACTTCTCCT CAGATGTATT CAGAGAATAG CTATACTCCA ATAAAGTCTT
TGATTTGTAT TTGAAGAGGA GTCTACATAA GTCTCTTATC GATATGAGGT TATTTCAGAA

1300
AAACTTTGAG CCAGTCAAGT AACTGATCA AAGGGTTTAT GAAAACACT AACTTCTTAT
TTTGAAATC GGTCAAGTCA TGTGACTAGT TTCCCAAATA CTTTTTGTGA TTGAAGAATA

1350
CCTCTAATTG CGATTACCCA TAGACGAAAC CAATAAAAAA GCAATGGAGA ACTAGAGCAC
GGAGATTAAC GCTAATGGGT ATCTGCTTTG GTTATTTTTT CGTTACCTCT TGATCTCGTG

1400
AGTCACTACA AGAAATACCC TATAAAAGTA CCGACCTGCA CCGATGAGGA TGGTGAGCTT
TCAGTGATGT TCTTTATGGG ATATTTTCAT GGCTGGACGT GGCTACTCCT ACCACTCGAA

1450 1500
CCCAGCGGA AGAGCCATGG CTAGAGACGA GCTTATACGG CGAAGAACTA AGATGGCAAA
GGGCTCGCCT TCTCGGTACC GATCTCTGCT CGAATATGCC GCTTCTTGAT TCTACCGTTT

1550
CGAATCCGCG TGAGAATATC TAAGAGAGTA TTGGTAAGAG AGAGCTGCAG GAACGTACCG
GCTTAGGCGC ACTCTTATAG ATTCTCTCAT AACCATTCTC TCTCGACGTC CTTGCATGGC

1600
GTGAAACAGA GCGCTTTTTT GGGACGATGA AGTGAGGCAG CGAGAGAGAT ACGACGTGCG
CACTTTGTCT CCGCAAAAAA CCCTGCTACT TCACTCCGTC GCTCTCTCTA TGCTGCACGC

1650
ACTATATTGT TCGCTTGTG AGGCAACAAA ACAGAGTTGC TTCTAAAACC CGAACCGAAA
TGATATAACA AGCGAACAAAC TCCGTTGTTT TGTCTCAACG AAGATTTTGG GCTTGGCTTT

1700
TGTCGGTCT GATTGCTCT AAATCACGAT TAGGTTCTGT TTAACCTTA GGAGGCAATA
ACAGGCCAGA CTAAGCCAGA TTTAGTGCTA ATCCAAGCAA AATTTTGGAT CCTCCGTTAT

1750 1800
ACCGGACGGA TCATAAATC ATAATAGAGA CAGACAAAT GGTCCATTAT TAAAATCACT
TGGCCTGCCT AGTATTTAAG TATTATCTCT GTCTGTTTAA CCAGGTAATA ATTTTAGTGA

1850
TGGGCATTTG GGGATGATTC AAATGCCCAA GTTTTCTCAA ATTTGGACGA TTCATTACCC

Fig. 3b

09869582-022502

ACCCGTAAAC CCCTACTAAG TTTACGGGTT CAAAAGAGTT TAAACCTGCT AAGTAAGTGG

1900

TAAGACATAC TTGAGCAACA ACAAAGTGAA GTCCACTGTC ATATCTTATG TCTCAAAAAG
ATTCTGTATG AACTCGTTGT TGTTCCTT CAGGTGACAG TATAGAATAC AGAGTTTTC

1950

TATTGAAATG TGTCAATTGA TATTGGAGAG GCACACTAGC TAAGGGATTA TTCAATCAAT
ATAACTTTAC ACAGTTAACT ATAACCTCTC CGTGTGATCG ATTCCCTAAT AAGTTAGTTA

2000

TTCCAGCAAT TTAATTAAAC TTATTTGTAG TGAAAGTGGG AAGATAAAAG ATCTCACCCCT
AAGGTCGTTA AATTAATTG AATAAACATC ACTTTCACCC TTCTATTTTC TAGAGTGGGA

2050

CACATGTTCA AAAAAAAG TTGAAATGG AAGTAATTCA ACATGTAGCA TAGAGCCCAA
GTGTACAAGT TTTTTCCTT AACTTTTACC TTCATTAAGT TGTACATCGT ATCTCGGGTT

2100

2150

ATATGTCTCA TTTTTCCTT CCATATAATC TCAAATCCTC TTACTTACTT CTAAACATAT
TATACAGAGT AAAAAAATTA GGTATATTAG AGTTTAGGAG AATGAATGAA GATTGTGATA

2200

GGTTCCCATATA ATCATAACAA TGCTATGTTA ACATGGCCGG TTCTAAAGGA AGCCAAGTGC
CCAAGGGTAT TAGTATTGTT ACGATACAAT TGTACCGGCC AAGATTTCCT TCGGTTTCACG

2250

AGCAACTGCC TTACGCCTCT ACGTGTAAAT ATGAAAATGA AGACCACTGA CCACTTCTAT
TCGTTGACGG AATGCGGAGA TGCACAATTT TACTTTTACT TCTGGTGAAT GGTGAAGATA

2300

TAAAGCTTCA TTCACTAGTG TATAATTACA CATTTTTTTA AGGATTATG AGTAGTGATT
ATTTGGAAGT AAGTGATCAC ATATTAATGT GTAAAAAAT TCCTAAATAC TCATCACTAA

2350

GAGGCCCATATA TGTTGTATG TTGTTTTC TTTACTATATC ATTACTTGAC TATAAGAGTT
CTCCGGGTAT ACAAACATAC AACAATAAG AATGATATAG TAATGAAGT ATATTCTCAA

2400

2450

GGTTTCCTAT TCCATTCTCT TTTCTAACAG CCTATATATG TAAAAATCTA AGCAAAATTT
CCAAAGGATA AGSTAAGAGA AAAGATTGTC GGATATATAC ATTTTATAGT TCGTTTTAA

2500

CTTGTCAAGA GGATGATTGT ACATTTGTAC TTGGTTATCT CGCCCCGGCC CAAAACATAC
GAACAGTTCT CTTACTAACA TGTAACATG AACCAATAGA GCGGGGCCG GTTTTGTATG

2550

CTAAGGCCAG GTGCTATATC CTCAACCTGC TTTGGCATTG ATCAATCTAC GAACTTTGGC
GATTCCGGTC CACGATATAG GAGTTGGACG AAACCGTAAG TAGTTAGATG CTTGAAACCG

2600

GTGAAACGGT GACAAGATTA ACAAGATTCA CTCTCAACTA CGATGTTCTA CTATCTCAA
CACTTTGCCA CTGTTCTAAT TGTTCTAAGT GAGAGTTGAT GCTACAAGAT GATAGAGTTT

2650

TCTTTAAAAA AGTGGATCAA ACTGTCAAAA GTCTAGTTCTG ATGGACTAGC TTCAACACTC
AGAAATTTTT TCACCTAGTT TGACAGTTTT CAGATCAAGC TACCTGATCG AAGTTGTGAG

2700

2750

CTCCAAATCT AGTTCGATGG ACTATATATT CTCTTCTGAT GCTATCCTTA TCTTGGATTA
GAGGTTTGA TCAAGCTACC TGATATATAA GAGAAGACTA CGATAGGAAT AGAACCTAAT

Fig 3c

09869582-022802

2800
GGCATCTAAA CTATGGTTTT AATGGTGTCA TGAGGTTTTA CAACTTACAA GGATGAAAGT
CCGTAGATTT GATACCAAAA TTACCACAGT ACTCCAAAT GTTGAATGTT CCTACTTTCA

2850
TATTTACTCC CAGTCACTAT CTTAATCAAA TGACAAAATG TTAAGTAGTT TGAGTGCTTA
ATAAATGAGG GTCAGTGATA GAATTAGTTT ACTGTTTTAC AATTGATCAA ACTCACGAAT

2900
TATATTAGTT ATGAATCTGA AATTTATTAG TGTGTACATA AGTGATACAA CACTTAAATA
ATATAATCAA TACTTAGACT TTAAATAATC ACACATGTAT TCACTATGTT GTGAATTTAT

2950
ACATCTACAT GAGTTTTTAA ATAACATAAT AATCCATTAT AGTAGTTTAC GGCATAAGGT
TGTAGATGTA CTCAAAAATT TATTGTATTA TTAGGTAATA TCATCAAATG CCGTATTCCA

3000
ATGAACCAAA TTTTTCATTG CACGCTGAAA AGTGAAAACC TTTAAATGC ATAATGACTA
TACTTGTTTT AAAAAGTAAC GTGCGACTTT TCACTTTTGG AAATTTTACG TATTACTGAT

3050
AGAGTCTATG ACAACAGTAA CTTACTATAT ATTAGAGGAG GGGTGAAAAA AAAAGTAGAG
TCTCAGATAC TGTGTGCTAT GAATGATATA TAATCTCCTC CCCACTTTTT TTTTCATCTC

3100
AGACTGGTCC AAAAAGTTAA CCCCCTCAA TAAACCCAGA CGTGACTTGT TTGACGATAA
TCTGACCAGG TTTTGAATT GGGGTGAGTT ATTTGGGTCT GCACTGAACA AACTGCTATT

3150
CTCCATCTTT CTATTTTGGG TAACGAGGTC CCCTTCCCAT TACGTCTTGA CGTGGACCCT
GAGGTAGAAA GATAAAACCC ATTGCTCCAG GGGAAGGGTA ATGCAGAACT GCACCTGGGA

3200
GTCCGTCTAT TTTTAGCAGA TTAATCCAAC GGTCTTATT CTTTCTTCGA CCCTTCACGA
CAGGCAGATA AAAATCGTCT AATTAGGTTG CCAAGAATAA GAAAGAAGCT GGAAGTGCT

3250
CATTGCCTCA AAGCCGTCCG ATTCTCATCT CACGCCCAAT GGACCACATA TATCACCAGT
GTAACGGAGT TTCGGCAGGC TAAGAGTAGA GTGCGGGTTA CCTGGTGTAT ATAGTGGTCA

3300
ACTCCGCAAC TTAGCTGTCG TGAGGATTT CACGTGGCAT TTATTTGTTT TAGTTTGTAG
TGAGGCGTTG AATCGACAGC ACATCTAAA GTGCACCGTA AATAACAAG ATCAAACATC

3350
TGCAAAACATT GCAAAGTTGAT ATGGTCCCCT ATCGATCACC GTCGTCTCTT TAGCTTCACA
ACGTTTGTA CGTTCAACTA TACCAGGGGA TAGCTAGTGG CAGCAGAGAA ATCGAAGTGT

3400
TCGAGATTCT TCTTTCTTTC CTACGTGTAA TAGCATTTTT GATTTTGAGA ATTTCTTTAG
AGCTCTAAGA AGAAAGAAAG GATGCACATT ATCGTAAAAA CTAAACTCT TAAAGAAATC

3450
AACCGTTGGA TCTCTCATCG TTGGTTGATC CATCCATCCA AATGGGACCT GTGTGTGCTC
TTGGCAACCT AGAGAGTAGC AACCAACTAG GTAGGTAGGT TTACCCTGGA CACACACGAG

3500
CATCCAGGGC ATATGATCCC AAAGCCAAAA GAGTATTTCC AAGTGCTTTC TTTCTTTCTT
GTAGGTCCCG TATACTAGGG TTTCGGTTTT CTCATAAAGG TTCACGAAAG AAAGAAAGAA

3550
TCTTTCTTTC TTACTAACCT TTTTTTTTCT TATGCTTTAG ACTAAGAAAT TTATTCGGCC

3600
TCTTTCTTTC TTACTAACCT TTTTTTTTCT TATGCTTTAG ACTAAGAAAT TTATTCGGCC

Fig. 3d

AGAAAGAAAG AATGATTGGA AAAAAAAGA ATACGAAATC TGATTCTTTA AATAAGCCGG

3750
ATATCCACTT TTACGAATAT ACTTCTTACA AGATCTAGAT TTTTGTGAGT TAATTCGGTG
TATAGGTGAA AATGCTTATA TGAAGAATGT TCTAGATCTA AAAAACTCA ATTAAGCCAC

3800
TATATAACAT TGGCATGGAC TGCAATTAAG TAATGGTAAT GTGATCATGA TGCATGTGT
ATATATTGTA ACCGTACCTG ACGTTAATTC ATTACCATTA CACTAGTACT ACGCTACACA

3850 3900
CGTTATCAGT AGTATAATAT TGATGGGCTA CCCTGGAAAA CAAAATTACG TGTTATATGT
GCAATAGTCA TCATATTATA ACTACCCGAT GGGACCTTTT GTTTAATGC ACAATATACA

3950
ACACAATTTG GTAGAACCGT AGAAATTAAA CTGAATAAAA CCTTCTATAA TGTTCAAAAT
TGTGTTAAAC CATCTTGGCA TCTTTAATTT GACTTATTTT GGAAGATATT ACAAGTTTAA

4000
TATATGGTAC AGATTAATAC GGAAAAACAT TCACGCTTTA CGTAACAATT AAGTGAAAG
ATATACCATG TCTAATTATG CCTTTTGTGA AGTGCGAAAT GCATTGTTAA TTCACCTTTC

4050
TAAAATTATC CCAAAAATAT TTATATCACA TCATTGTTAT ATTTCTAAGT TTTTATATAT
ATTTTAATAG GGTTTTATA AATATAGTGT AGTAACAATA TAAAGATTCA AAAAAATATA

4100
CTCTAATGGT ATATGTTTTA CAGATTGTTT TTTGGGAAAA TTCTTAAAGA GACTTGAAGA
GAGATTACCA TATACAAAAT GTCTAACAAA AAACCCTTTT AAGAATTTCT CTGAACCTCT

4150 4200
ATGTTTTTTT TTTATTTTCT TGAAATGTTT GACACTTGAA ACCGTTTAAA AACTCAAATA
TACAAAAAAA AAATAAAGA ACTTTACAAA CTGTGAACCT TGGCAAATTT TTGAGTTTAT

4250
TAGTATATAT CATTGTGGT CTCATACCTT GTAATTCACC ACATATATTA TCAATGGGGA
ATCATATATA GTAACAACCA GAGTATGGAA CATTAGTGG TGATATAAT AGTTACCCCT

4300
AGATTTGAAA ATTTTGGGG GATCACAAAA CGAAGGAAAG AGTACAAAA GAGAAGGAAA
TCTAACTTT TAAAAACCC CTAGTGTTTT GCTTCCTTTC TCATGTTTTT CTCTCCTTT

4350
AGATAGAAGA TATATGTTTT TAACTTCATT GGTATGACAT CAATAAATAA ATAGTTGAAT
TCTATCTTCT ATATACAAAA ATTGAAGTAA CCATACTGTA GTTATTTATT TATCAACTTA

4400
GTACTTTAGT TTCTCTTTTG GTTTAATGCA CATCATCTCG ATCAATTGTC ATCATCTTAC
CATGAAATCA AAGAGAAAAC CAAATTACGT GTAGTAGAGC TAGTTAACAG TAGTAGAATG

4450 4500
ATTGAATTAT ACGACCAGAT CTGATAACAA GTGAATTCGT ACTTGCCCTT CCCTTCTTTC
TAACTTAATA TGCTGGTCTA GACTATTGTT CACTTAAGCA TGAACGGGAA GGGAAAGAAG

4550
TCATACGTCC TTCTAACTAA TTTTGATTGT AACTTATAAT TATATAACCA TATTTAATTT
AGTATGCAGG AAGATTGATT AAAACTAACA TTGAATATTA ATATATTGGT ATAAATTAA

4600
TATTTTATCT AAAACCAATT GAAGCAAATT AAAATATCAT AAATCTTGAG TCCCACATGA
ATAAAATAGA TTTTGTTAA CTCGTTTAA TTTTATAGTA TTTAGAATC AGGGTGTACT

Fig. 3e

09869582-022802

4650
AGACAATATA TAAAACTCGT GCAAATTTGC TTAAAATGCT TCTATGAGAC CATGACCAAG
TCTGTTATAT ATTTTGAGCA CGTTTAAACG AATTTTACGA AGATACTCTG GTACTGGTTC

4700
TGAGATTAAT AAGCGATTCA ATGTGCAAAT CAAAAGAGAA AAGAAGCTAA TGGGTTTAA
ACTCTAATTA TTCGCTAAGT TACACGTTTA GTTTTCTCTT TTCTTCGATT ACCCAAATTT

4750 4800
TATAACCAAA CAGAATAATA ATGCTATGTT TAGTTTTTCT AATTGAATCA TACCTTTGTG
ATATTGGTTT GTCTTATTAT TACGATACAA ATCAAAAAGA TTAACCTAGT ATGGAAACAC

4850
TCCATCACCT ACTTACCGGT CAGAATAAAG CAATTACGTC TGCAACCAAA AAGCACTAAG
AGGTAGTGGA TGAATGGCCA GTCTTATTTT GTTAATGCAG ACGTTGGTTT TTCGTGATTC

4900
ACTTTCGGTC AGACATGATC TCTAACATCG GACGAACCCCT AAGATAACCA AAATAAACTA
TGAAAGCCAG TCTGTACTAG AGATTGTAGC CTGCTTGGGA TTCTATTGGT TTTATTTGAT

4950
TATCTTATAT TCAAATCTCT GTTATTTTGA TCCATTTATG TTTTCTTTCT TTCCATAAT
ATAGAATATA AGTTTAGAGA CAAATAAAAT AGGTAAATAC AAAAGAAAGA AAGGGTATTA

5000
TTTTTTTGTG TCTCATCAGA CTCTCTTACC AAAGTGAATT TATCAACATG GTTTTTTTTT
AAAAAACAC AGAGTAGTCT GAGAGAATGG TTTGACTTAA ATAGTTGTAC CAAAAAATAA

5050 5100
TGGCCACATC AAAATGGTGG TTTATAAAGT AGACTAATAC AAAAGACATT TCTGTTAATT
ACCGGTGTAG TTTTACCACC AAATATTTCA TCTGATTATG TTTTCTGTAA AGACAATTAA

5150
TCACTAACAA AAATAATCTT AGCAGTACTA TAGATTGGAA AAGGAAAAGC AAATCTAGCA
AGTGATTGTT TTTATTAGAA TCGTCATGAT ATCTAACCTT TTCCTTTTCG TTTAGATCGT

5200
GTAAGATTTA TCAAACTAG CAGTAAGAGT TTTAGATATC ATGAAAACAT CACAAACGAG
CATCTAAAT AGTTTTGATC GTCATTCTCA AAATCTATAG TACTTTTGTA GTGTTTGCTC

5250
TAGTGTTTTA CTTTACATTT TTAACCAATC ACAAGGGTAG TTCCGTAAGT TGGGAAAATC
ATCACAAAAT GAAATGTAAA AATTGGTTAG TGTTCCCATC AAGGCATTCA ACCCTTTTAG

5300
GTACGAGGCT TCACCTAGTT AAGGTTAGGT CACATGATTC CCTGAACTCG ATTTTATAAG
CATGCTCCGA AGTGGATCAA TTCCAATCCA GTGTACTAAG GGACTTGAGC TAAAAATTC

5350 5400
TAAAAAGAA AAATTTATAA AATCAAAATT TTTTATATAA AAAATCAGG TGGATTTATC
ATTTTTCTT TTTAAATATT TTAGTTTTAA AAAATATATT TTTTGTAGTCC ACCTAAATAG

5450
AGACCCTACC ATCGAGATGT CGACACGTGT CCAAACCTCAT TCATTGCCCT ACTATTTTCT
TCTGGGATGG TAGCTCTACA GCTGTGCACA GGTGTGAGTA AGTAACGGGA TGATAAAGA

5500
GTTTAGGGTT GCAATCACTC ATCGCACACG CGCCATCTCC ACCTTCCATT ATTAATCTCT
CAAATCCCAA CGTTAGTGAG TAGCGTGTGC GCGGTAGAGG TGAAGGTAA TAATTAGAGA

5550
CATTTTCAAC ATCACACTCT TACGAATCAT ACGATTTTAA TATCTCTGTC TCTCTCAACG

Fig. 3f

09869582-022802

GTAAAAGTTG TAGTGTGAGA ATGCTTAGTA TGCTAAAATT ATAGAGACAG AGAGAGTTGC

5600

TATTAAATAA AAATGGTTTT AAATGTTAGG GTTTTTTGTA GGATTTTCAA TTATTAATCT
ATAATTTATT TTTACCAAAA TTTACAATCC CAAAAACAT CCTAAAAGTT AATAATTAGA

5650

CTATAATTCG ATGAACTAAG TAAAAAGCA TCAAACCTTC TTGGCAGAAT CACATTTTTTC
GATATTAAGC TACTTGATTG ATTTTTTCGT AGTTTGAAAG AACCGTCTTA GTGTAAAAAG

5700

TCTAAACTAA ATATGGACTG AAATTGAAAA ATTAAACCAC TAGCTAGAAT AAAGTGTGGG
AGATTTGATT TATACCTGAC TTTAACTTTT TAATTTGGTG ATCGATCTTA TTTCACAACC

5750

TGAGAGTGGA ACTCTAATTT CTCTCCTTTA CTAATTATGT ATAAACACAA AAATGCACCA
ACTCTCACCT TGAGATTAAA GAGAGGAAAT GATTAATACA TATTTGTGTT TTTACGTGGT

5800

AAATTTTAGG TTTGAAAATA TCTAAGCATG GATAGGGTAA TTAACATTTT TTCTTTCAAT
TTAAAAATCC AAACCTTTTAT AGATTCGTAC CTATCCCATT AATTGTAAAA AAGAAAGTTA

5850

TTTGCAATAT TTGAATAAAT CCTATGAGGG TCTTTGGTAC ACAATAATTG GAGGGTATAT
AAACGTTATA AACTTATTTA GGATACTCCC AGAAACCATG TGTATTAAAC CTCCCATATA

5900

AGTTGAGTCT GAGAGTATAT TAGAAAGAGA ATATTTCAAG TAATGAAGCT GACATGTTTA
TCAACTCAGA CTCTCATATA ATCTTTCTCT TATAAAGTTC ATTACTTCGA CTGTACAAAT

5950

6000

TATGTACTTT GAGAGAAGTG TTGTGAGATT TGTACAAATG TATATGTACA CTTTAAAAAG
ATACATGAAA CTCTCTTCAC AACACTCTAA ACATGTTTAC ATATACATGT GAAATTTTTC

6050

CAATATAAGA TAGATAAAAA AAATATAAAG AAAAAAGAA AGAAAGAAAG AAAGAAAGAG
GTTATATTCT ATCTATTTTT TTTATATTTT TTTTTTCTT TCTTTCTTTC TTTCTTTCTC

6100

AGAGGCTCAT ATATATATAG AATTGCTTGC AAGGAAAGAG AGAGAGAGAG ATTGAGATAT
TCTCCGAGTA TATATATATC TTAACGAACG TTCCTTTCTC TCTCTCTCTC TAACTCTATA

6150

CTTTTGGGAG AGGAGAAAGA AAAAGAAAAT GGAAGAGGG AGAGTAGAAT TGAAGAGGAT
GAAAACCTC TCCTCTTTCT TTTTCTTTTA CCCTTCTCCC TCTCATCTTA ACTTCTCCTA

6200

AGAGAACAAG ATCAATAGGC AAGTGACGTT TGCAAAGAGA AGGAATGGTC TTTTGAAGAA
TCTCTTGTTT TAGTTATCCG TTCACTGCAA ACGTTTCTCT TCCTTACCAG AAAACTTCTT

6250

6300

AGCATACGAG CTTTCAGTTC TATGTGATGC AGAAGTTGCT CTCATCATCT TCTCAAATAG
TCGTATGCTC GAAAGTCAAG ATACACTACG TCTTCAACGA GAGTAGTAGA AGAGTTTATC

6350

AGGAAAGCTG TACGAGTTTT GCAGTAGTTC GAGGTATATA TCTACTTTTG TATATATATT
TCCTTTCGAC ATGCTCAAAA CGTCATCAAG CTCCATATAT AGATGAAAAC ATATATATAA

6400

ACTTATAACA TAAACATTTT ATATACATAT TAAGTAACAC AAAAAATGCT TGTATGTATG
TGAATATTGT ATTTGTAAAA TATATGTATA ATTCATTGTG TTTTACAGA ACATACATAC

6450

Fig. 3g

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6500
GGTCTCTCTG TGATGTGTTG TTGTGTCGTA CGTACGTGTT CTATCATATC CTTTTAAAG
CCAGAGAGAC ACTACACAAC AACACAGCAT GCATGCACAA GATAGTATAG GAAAATTTTC

6550
AAGCAAAGAG GAAAAAAAT TTGGGATACC CCAAATCTGT ATCATTTTAT AACAAAGTTG
TTCGTTTCTC CTTTTTTTAA AACCCATATGG GGTTTAGACA TAGTAAATA TTGTTCAAAC

6650
CTTTTTGAT GTTCTTTTGT GTTCTCTTTT GATTTCATT TTTGTTTTTG ATTTTTTTTC
GAAAAACTA CAAGAAAACA CAAAGAGAAA CTAAAGGTAA AAACAAAAC TAAAAAAG

6700
TATTTCTCTT TACATCTATC AAAGTTTTTT TTCTTATATT TTATTGCTTA TTTGTTTGTC
ATAAGAGAA ATGTAGATAG TTTCAAAAAA AAGAATATAA AATAACGAAT AAACAAACAG

6750
TACTTAATTC ACATTATCTG AGAGAAGAAC AATCTATCTG ATATGAAATT AGGGTTAATT
ATGAATTAAG TGTAATAGAC TCTCTTCTTG TTAGATAGAC TATACTTTAA TCCCAATTAA

6800
TCTCTTGTA GTACTCTTTA ATTCACATAA GCTTAAAGTT TCCACCTTTT GATTCTGGGG
AGAGAACT CATGAGAAAT TAAGTGATTT CGAATTTCAA AGGTGGAATA CTAAGACCCC

6850
GTCGTCCAAT TCGATCAAAT CACTCAATTT TGTGTCAGA TTGATATAAG TTCATAGGGG
CAGCAGGTTA AGCTAGTTTA GTGAGTTAAA ACAACAGTCT AACTATATTC AAGTATCCCC

6900
GATATTGTTT CCACGACAAT CCATTTTAGT AACCCCTAGG GGTTTCCAAT TTTGGGTTTT
CTATAACAAA GGTGCTGTTA GGTAAATCA TTGGGAATCC CCAAAGGTTA AAACCCAAAA

7000
GAATTGACGC TAATGTCAA TTTCTCTAAA GTCCGTTGGA TATGTATACT TGGGGATGGG
CTTAAGTGG ATTACAGTTT AAGTAGATTT CAGGCAACCT ATACATATGA ACCCTACCC

7050
ATTCATCCTT TTTCTGGGT TCTTTAGATC TTCTCTTAAA AGACTAACAG ATTTTGTGT
TAAGTAGGAA AAAAGACCCA AGAAATCTAG AAGAGAATTT TCTGATTGTC TAAACAACA

7100
AAACCCTAGG AACAGTTAA AAATCCCATT TTTAAAAACA TGTTTTGAAC TTGATGAGTA
TTTGGGATCC TTTGTCAATT TTTAGGGTAA AAATTTTGT ACAAAATTG AACTACTCAT

7150
AGATTAATGG AAGAAATGAT GTTTTGTGT GGTGTGAAGC ATGCTTCGGA CACTGGAGAG
TCTAATTACC TTCTTTACTA CAAAAACACA CCACACTTCG TACGAAGCCT GTGACCTCTC

7200
GTACCAAAAG TGTAATATG GAGCACCAGA ACCCAATGTG CCTTCAAGAG AGGCCTTAGC
CATGGTTTTC ACATTGATAC CTCGTGGTCT TGGGTTACAC GGAAGTTCTC TCCGGAATCG

7250
AGTTGTACCC AATTCTCTC TCTTCTTCT AATTACCTTA ATTAATTACT CTCAATTTTT
TCAACATGGG TTAAGAGAAG AGAAAGAAGA TTAATGGAAT TAATTAATGA GAGTTAAAA

7300
ACTTTGATTT TTAGAGTCAA ATGATTAATG TTATAATTTG TCATATACTT CAGGAAGTTA
TGAAACTAAA AATCTCAGTT TACTAATTAC AATATTAAAC AGTATATGAA GTCCTTGAAT

7350
GTAGCCAGCA GGAGTATCTC AAGCTTAAGG AGCGTTATGA CGCCTTACAG AGAACCCAAA

Fig. 3h

09869582.1022802

CATCGGTCGT CCTCATAGAG TTCGAATTCC TCGCAATACT GCGGAATGTC TCTTGGGTTT

7450 7500
GGTAAACTAA TTAGCTTCTT CAGCTACCTT CAGAGAGTGT TTGTTTTTTT AGTAGATTTT
CCATTTGATT AATCGAAGAA GTCGATGGAA GTCTCTCACA AACAAAAAAA TCATCTAAAA

7550
TTTGATGGTT TTGATGTTGA AATAGGAATC TGTTGGGAGA AGATCTTGGA CCTCTAAGTA
AAACTACCAA AACTACAAC TATCCTTAG ACAACCCTCT TCTAGAACCT GGAGATTCAT

7600
CAAAGGAGCT TGAGTCACTT GAGAGACAGC TTGATTCTTC CTTGAAGCAG ATCAGAGCTC
GTTTCCTCGA ACTCAGTGAA CTCTCTGTCG AACTAAGAAG GAACTTCGTC TAGTCTCGAG

7650
TCAGGGTACT ACTTTGTTCA TCAATATCTT TATACACTGA TCTATTTCCA TAGTAAGATT
AGTCCCATGA TGAAACAAGT AGTTATAGAA ATATGTGACT AGATAAAGGT ATCATTCTAA

7700
AAATTTGGTG TTAAATTCTG CAGACACAGT TTATGCTTGA CCAGCTCAAC GATCTTCAGA
TTTAAACCAC AAATTAAGAC GTCTGTGTCA AATACGAAC TGTGAGTTG CTAGAAGTCT

7750 7800
GTAAGGTAAA TAAAGAAACA CTCATTCTCC TCTCTAAATT CCTCATCTAA AAGTAATGTA
CATTCCATT ATTCTTTGT GAGTAAGAGG AGAGATTAA GGAGTAGATT TTCATTACAT

7850
ACCAAGAAAA CACAAATATT TGGAGCAGGA ACGCATGCTG ACTGAGACAA ATAAACTCT
TGGTTCCTTT GTGTTTATAA ACCTCGTCCT TGCCTACGAC TGACTCTGTT TATTTTGAGA

7900
AAGACTAAGG GTAATTAATA TACATTCTCA TATCACCAA TTAATGCATC ACTAAATTTG
TTCTGATTCC CATTAATTAT ATGTAAGAGT ATAGTGGTTT AATTACGTAG TGATTTAAAC

7950
GTTATAATGT GTGTGTGTAT ATACATATGT GACAGTTAGC TGATGGGTAT CAGATGCCAC
CAATATTACA CACACACATA TATGTATACA CTGTCAATCG ACTACCCATA GTCTACGGTG

8000
TCCAGCTGAA CCCTAACCAG GAAGAGGTTG ATCACTACGG TCGTCATCAT CATCAACAAC
AGGTCGACTT GGGATTGGTT CTTCTCCAAC TAGTGATGCC AGCAGTAGTA GTAGTTGTTG

8050 8100
AACAACTC CCAAGCTTTC TTCCAGCCTT TGGAAATGTA ACCCATCTT CAGATCGGGT
TTGTTGTGAG GGTTCGAAAG AAGGTCGAA ACCTTACACT TGGGTAAGAA GTCTAGCCCA

8150
AACTTTAGAC TAGTATAACC AATTTGATTT GAGTTCTATT ATAAGCTTTT CTTAAGAAAG
TTGAAATCTG ATCATATTGG TTAACTAAA CTCAAGATAA TATTCGAAAA GAATTCCTTC

8200
TATCTCAAAC TACTAAATTT TATGGAGCAG GTATCAGGGG CAACAAGATG GAATGGGAGC
ATAGAGTTG ATGATTTAAA ATACCTCGTC CATAGTCCCC GTTGTCTTAC CTTACCTCG

8250
AGGACCAAGT GTGAATAATT ACATGTTGGG TTGGTTACCT TATGACACCA ACTCTATTTG
TCCTGGTTCA CACTTATTAA TGTACAACCC AACCAATGGA ATACTGTGGT TGAGATAAAC

8300
AATCTTTCTC ACTTAATCAA TCCCTCTCTT TTTTTTTTGA CATTTTAAAG ATGATGTTTC
TTAGAAAGAG TGAATTAGTT AGGGAGAGAA AAAAAAACT GTAAAAATTC TACTACAAAG

Fig. 3i

09869582 027802

8350
TATTTTATTA CCTCTCTCAT GTTTTCTGTC TTGTGTGCAT GTGTGTGTGT AATGTTTATG
ATAAAATAAT GGAGAGAGTA CAAAAGACAG AACACACGTA CACACACACA TTACAAATAC

8400
CCCTTCTATT ATTCAATAAT TTTTTCGACA ATTTTGCTTC CTATTTTAC CCATTACTCC
GGGAAGATAA TAAGTTATTA AAAAAGCTGT TAAACGAAG GATAAAATG GGTAAATGAGG

8450
TAAACTTCCT GATCCAGTTT CTTTTAAAT AACTCCCATT TTATGCATGT TATCTAACCA
ATTTGAAGGA CTAGGTCAAA GAAAATTTA TTGAGGGTAA AATACGTACA ATAGATTGGT

8500
ATTCTCTTAA CTATGATTTA TGGTACGATA TAACTCACAG TCTCACACTA TCTATTTGGT
TAAGAGAATT GATACTAAAT ACCATGCTAT ATTGAGTGTC AGAGTGTGAT AGATAAACCA

8550
GTTTTTTTGT TTGAGTCTTG AGAAGGGACC GCTTGTTTAT CTCTCTTGTT AAAGAGCAAC
CAAAAAACA AACTCAGAAC TCTTCCCTGG CGAACAAATA GAGAGAACAA TTTCTCGTTG

8600
TCACTGGCCA CTGCTTATGT ATCTGTAGGC CCCACCTATA TCATTTTGGC TATATCTATA
AGTGACCGGT GACGAATACA TAGACATCCG GGGTGGATAT AGTAAACCG ATATAGATAT

8650
CTTTTGTAGA GGGAGTATTA CTATAGAGAA GAAGATAAAT TTGGTTCTAA TATATCTTGC
GAAAACATCT CCCTCATAAT GATATCTCTT CTTCTATTTA AACCAAGATT ATATAGAACG

8700
AGGTAGTTGA TATTCTCAAT TATCATGAAG ATTTGATAGA CAAGTTTATC AGATACCTTA
TCCATCAACT ATAAGAGTTA ATAGTACTTC TAAACTATCT GTTCAAATAG TCTATGGAAT

8750
AACATAGGTT TAAGATCTCA ATTGAAATGT GAATTCACCC GACGATTAGA GTTACGATCT
TTGTATCCAA ATTCTAGAGT TAACTTTACA CTTAAGTGGG CTGCTAATCT CAATGCTAGA

8800
AAGGAAGCGT TTCTTGAATT TTGAGTTTGT TTGATCAAGA GTAGAATGCT TTTCTATTAC
TTCCTTCGCA AAGAACTTAA AACTCAAACA AACTAGTTCT CATCTTACGA AAAGATAATG

8850
TAAGTTTGGT AATGCTTATA TTCCATGACC AAGGCCAAGA GAACAAACAA AAACATGGTG
ATTCCAACAA TTACGAATAT AAGGTACTGG TTCCGTTTCT CTTGTTTGT TTTGTACCAC

8900
CCTCTTGATG TATAGTAATG GCTCTTAATG GTCATATACA GAGAAAAAAA GATTAATGTC
GGAGAACTAC ATATCATTAC CGAGAATTAC CAGTATATGT CTCTTTTTTT CTAATTACAG

9000
GTTGCACAAG CTTGAAGTTA CTTACTCCTC GTCTTCCTCA TTAGTGTCTT CGTCTTCCTC
CAACGTGTTC GAACTTCAAT GAATGAGGAG CAGAAGGAGT AATCACAGAA GCAGAAGGAG

9050
ATCCTCATCG CTCCCAATAT AGGGCTTCAT CTAATTGAAA ACCAAATGCT CATGCAGTGG
TAGGAGTAGC GAGGGTTATA TCCCGAAGTA GATGAACTTT TGGTTTACGA GTACGTCACC

9100
AAAAAGATAA CAGAGGTTCA AATTAAGGCA AACAAAATA CAAGTGAGAA AGGGAACTA
TTTTTCTATT GTCTCCAAGT TTAATCCGT TTGTTTGTAT GTTCACTCTT TCCCTTTGAT

9150
CAAGTGGTAA GATGTAATGT TTTGACTCAA AACCAGATCA GACAATGAAA AAAAGTATTG

9200
CAAGTGGTAA GATGTAATGT TTTGACTCAA AACCAGATCA GACAATGAAA AAAAGTATTG

9250
CAAGTGGTAA GATGTAATGT TTTGACTCAA AACCAGATCA GACAATGAAA AAAAGTATTG

9300
CAAGTGGTAA GATGTAATGT TTTGACTCAA AACCAGATCA GACAATGAAA AAAAGTATTG

Fig. 3j

09869582-022602

GTTCCACCATT CTACATTACA AACTGAGTT TTGGTCTAGT CTGTTACTTT TTTTCATAAC

9350
ATACAAAAAG TCCATCCGGA AGCATAATTA CCGCTTGAG GATGTCATCA GAGATGTCTG
TATGTTTTTC AGGTAGGCCT TCGTATTAAAT GGCGAACGTC CTACAGTAGT CTCTACAGAC

9400
TTAGTCGGCC AATGGCATAG ATGGTGAGCG GACCAGAGTA GCGTAAATCC TCTAAATACT
AATCAGCCGG TTACCGTATC TACCACTCGC CTGGTCTCAT CGCATTTAGG AGATTTATGA

9450
GTCTAAAAGC CGGACCGACC CGACAAGGAT CACAGTCAAG GGAATAGGA CACCTATTGA
CAGATTTTCG GCCTGGCTGG GCTGTTCTTA GTGTCAGTTC CCCTTATCCT GTGGATAACT

9500
TATCCCAAAA GACTGTTGTT ACAGCCACAT CATCCTTGTC CAACTGGGTA GCCCAAAGGG
ATAGGGTTTT CTGACAACAA TGTCGGTGTA GTAGGAACAG GTTGACCCAT CGGGTTTCCC

9550
AAACTAGTTG TGGTAAGAGC TTGTTTGA CTAAAAATGG CTAAGTAGGA TGATGCTGAA
TTTGATCAAC ACCATTCTCG AACAACTGA GTTTTTTACC GATTGATCCT ACTACGACTT

9600
TTACCATCTG TTCATGTTTT TGAAGTAGA GATGGGTAGT GAAATTTTCA AAGCCTTTCG
AATGGTAGAC AAGTACAAAA ACTGATCTCT CTACCCATCA CTTTAAAGT TTCGGAACG

9650
AAAACGCCCTG TGGGACCTGT TTCAGAAAAA GACTTAAAAG ACTTGAGACT CAAGGAAAAT
TTTTGCGGAC ACCCTGGACA AAGTCTTTTT CTGAATTTTC TGAAGTCTGA GTTCCTTTTA

9700
AATATCCATT ATATAAGAT GACAACAAAT ATTAACGGAA GTAGGAGTGA TTGAGAACGA
TTATAGGTAA TATATTTCTA CTGTTGTTTA TAATTGCCTT CATCCTCACT AACTCTTGCT

9750
TTCTAGTAGA AGAGACGGCT CGCAGGACGT CGTTTATAAT AGGCCAATGG CAGAGATAGT
AAGATCATCT TCTCTGCCGA GCGTCCTGCA GCAAATATTA TCCGGTTACC GTCTCTATCA

9800
GAGAGGACCG GAGTAGCCTA AATTCTTTAA ATGTCGTTG ATACACGGAC CAACTAGACG
CTCTCCTGGC CTCATCGGAT TTAAGAAATT TACAGCAAAC TATGTGCTG GTTGATCTGC

9850
AGCATCATAC TCAGAGGGAA CCGGACACGT CTTGATATCC CAGAAGACCG ATGTTACGGC
TCGTAGTATG AGTCTCCCTT GGCTGTGCA GAACTATAGG GTCTTCTGGC TACAATGCCG

9900
CTTAGCTTGC TGCCGCGTTG CCTTCATCAT CATCTTCTCC TTTTAATCTA TAACGGAAAT
GAATCGAACG ACGGCGCAAC GGAAGTAGTA GTAGAAGAGG AAAATTAGAT ATTGCCTTTA

9950
CAAACATCAG ATAAAGCATT CGAAAAGATA GATTGACACA GGTTAAATCA TCCACTTCAG
GTTTGTAGTC TATTTCTGAA GCTTTTCTAT CTAAGTGTGT CCAATTTAGT AGGTGAAGTC

10000
AGAAAAAGAG AGGGACATGG CCGTAAACAA TGAGATAAGG ATCGGCCTAA TGTTTATAAT
TCTTTTCTC TCCCTGTACC GGCATTTGTT ACTCTATTCC TAGCCGATT ACAAATATTA

10050
GGGCTTGCGT TTAATGGGCC TACAGTTTCT TGAATCAGCC TTATGCATGA GTCCTAGTAT
CCCGAACGCA AATTACCCGG ATGTCAAAGA ACTTAGTCGG AATACGTACT CAGGATCATA

10100
GGGCTTGCGT TTAATGGGCC TACAGTTTCT TGAATCAGCC TTATGCATGA GTCCTAGTAT
CCCGAACGCA AATTACCCGG ATGTCAAAGA ACTTAGTCGG AATACGTACT CAGGATCATA

10150
GGGCTTGCGT TTAATGGGCC TACAGTTTCT TGAATCAGCC TTATGCATGA GTCCTAGTAT
CCCGAACGCA AATTACCCGG ATGTCAAAGA ACTTAGTCGG AATACGTACT CAGGATCATA

10200
GGGCTTGCGT TTAATGGGCC TACAGTTTCT TGAATCAGCC TTATGCATGA GTCCTAGTAT
CCCGAACGCA AATTACCCGG ATGTCAAAGA ACTTAGTCGG AATACGTACT CAGGATCATA

Fig. 3k

10250

TTTATCAACT TTTTTTTTC ATCTTTCTTT AGTTACAATA GATTTAAAGT GTTTTTTGT
AAATAGTTGA AAAAAAAG TAGAAAGAA TCAATGTTAT CTAAATTTCA CAAAAACAA

10300

AATGCCATTG CAAAATTTGG TAACTGTTTA TAACATTGTT CCTCACTTCA AAATTTAAAG
TTACGGTAAC GTTTTAAACC ATTGACAAAT ATTGTACAA GGAGTGAAGT TTTAAATTTT

10350

CACCATTAAT AAAAGCTATA CATATAATTA TAACTTGGGT TTTGTGCAAA AAAACAAAC
GTGGTAATTA TTTCGATAT GTATATTAAT ATTGAACCCA AAACACGTTT TTTTGTGTTG

10400

AAATTAACCT TTCATTTTAA ATAAATGCAA TTCAATACCG CAATATCAAA AGTAACCCGT
TTTAATTGGA AAGTAAATTT TATTTACGTT AAGTTATGGC GTTATAGTTT TCATTGGGCA

10450

ATAACCTTTA TTCGTGTATA GATTTTAGAA ACAGTATAAG TCAAATTATC AAAACTATGT
TATTGGAAAT AAGCACATAT CTAAAATCTT TGTCATATTC AGTTTAATAG TTTTGATACA

10500

10550

TGTTTTAAGC ATTTTAAAAA TAAGAATAAT AATAATGTTG AAGGGTGGAT TTGAACCCAT
ACAAAATTCG TAAAATTTTT ATTCTTATTA TTATTACAAC TTCCACCTA AACTTGGGTA

10600

GAACTATAGA ACAAACCAAA GCATGCATAA CCACATGCGC CGAACAAACC AAAAATCAT
CTTGATATCT TGTGTTGGTT CGTACGTATT GGTGTACGCG GCTGTTTGG TTTTGTAGTA

10650

GGCTTTGTTA AACATATAAA AATATTCGAA TAAAAATGT GGGGAACCTG TTACCAGTTT
CCGAAACAAT TTGTATATTT TTATAAGCTT ATTTTITACA CCCCTTGAAC AATGGTCAAA

10700

TGGTTCTTTT TGGAGCCATT TTTTCAACA CAGATATTGT TAAGGAGTTT CAGGTAAAC
ACCAAGAAAA ACCTCGGTAA AAAAAGTTGT GTCTATAACA ATTCTCAAA GTCCATTTG

10750

TGTATATTAT GCAGGGAACC ACAGTAGGCT ATAATGAAAG TCACACTGTG AAGTTAGCAG
ACATATAATA CGTCCCTTGG TGTACCCGA TATTACTTTC AGTGTGACAC TTCAATCGTC

10800

10850

ACAAGTTTT ACTTAAAGAT GTGAGTTGTG ATCTTTTGA TGTAAGTCTT GATGTATATG
TGTTCAAAAA TGAATTTCTA CACTCAACAC TAGAAAACT ACATTCAGAA CTACATATAC

10900

TTGACAAATT ATATAAGTTT GTATTGCATA TTCTATGACT TACGAAGTTT CTATGCAAGA
AACTGTTTAA TATATTCAAA CATAACGTAT AAGATACTGA ATGCTTCAA GATACGTTCT

10950

AAAGCCGGA GAAAATTTCC GTCAAGTAAC TAAGAGATCG TAATTCCTGT CTGAAGAACA
TTTCGGCCCT CTTTAAAGG CAGTTCATTG ATTCTCTAGC ATTAAGAACA GACTTCTTGT

11000

ACCCTTTTT ATTATTTGAG TTTAGGTTGC CAACAGTGAA CAAAGGGACG AGATACCATA
TGGGAAAAAA TAATAAATC AAATCCAACG GTTGTCACTT GTTCCCTGCT TCTATGGTAT

11050

TGACAAATAT CCTCTAACGC CATTTCAACA GTTAATCAAC AGTGTGCGCT ATATGCATGT
ACTGTTTATA GGAGATTGCG GTAAAGTTGT CAATTAGTTG TCACAGCCGA TATACGTACA

11100

11150

GCTAACAATG CACAAGAACA TTGTCACCAT CCCGTGAATA TGAATATTAA TGATTATGAA

Fig. 3l

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09/869582

CGATTGTTAC GTGTTCTTGT AACAGTGGTA GGGCACTTAT ACTTATAATT ACTAATACTT

11200
CGAGTTTGTA GAGTTCCAAG AGGAAGGTAC TACCTTCTCA TACTCATTGA TCATATATTT
GCTCAAACAT CTCAAGGTTC TCCTTCCATG ATGGAAGAGT ATGAGTAACT AGTATATAAA

11250
TGTTTCTTGT TTGTTTGTAGT AACTAGGGTT ATTCCGATTG TTTTTCAAAA TAATAGTAAT
ACAAAGAACA AACAAAATCA TTGATCCCAA TAAGCCTAAC AAAAAAGTTT ATTATCATT

11300
ATGTCAACTA TATTTATAAA AAAAAAACT AAATAACTTT TGTACAATTG ATCATTTTTT
TACAGTTGAT ATAAATATTT TTTTTTTTGA TTTATTGAAA ACATGTTAAC TAGTAAAAAA

11350 11400
AAATATATCA TAAAGATTCA TCAATATATG AACATATATT TTTAACAATT AACTAATTG
TTTATATAGT ATTTCTAAGT AGTTATATAC TTGTATATAA AAATTGTTAA TGTGATTAA

11450
GCTATATAGT GTATAGTTCC TTTTGTGGAG AGGTTTAACT TCAGTTCAGA GATTATTGTA
CGATATATCA CATATCAAGG AAAACACCTC TCCAAATTCA AGTCAAGTCT CTAATAACAT

11500
CTTGGTAAAA TATTTGTCCT TGTTAATTAG TTCATCTTCT AGAATACAGA TTTGGGCCAT
GAACCATTTT ATAAACAGGA ACAATTAATC AAGTAGAAGA TCTTATGTCT AAACCCGCTA

11550
GTAGTTTCCC AGAAAACACC GGAAAAAAA TTCACACTTC ACACCAGAAA CAATAAACGA
CATCAAAGGG TCTTTTGTGG CCTTTTTTTT AAGTGTGAAG TGTGGTCTTT GTTATTTGCT

11600
GGAACAGAGC CCAAATCAT CCCTATAATT GGGCCCCAAA AAAGCAGAGC AAACCAAACC
CCTGTCTCG GGTGTGAGTA GGGATATTAA CCCGGGTTTT TTTGCTCTCG TTTGGTTTGG

11650 11700
AAAATCAAGT AAATCCATTT ACAAATATGC TTTATAATTA TTATTTTCT CAACCACAAA
TTTAGTTCA TTTAGGTAA TGTTTATACG AAATATTAAT AATAAAAAGA GTTGGTGT

11750
TATGCTTTAT AATTTATGTA AATGTTATAT GAATTATTTA CGATTTATTT TAATTACTTT
ATACGAAATA TTAAATACAT TTACAATATA CTTAATAAAT GCTAAATAAA ATTAATGAAA

11800
ATCTTGAAT TATCTTACGA AGTTAATGAA AATATTTTAA ATATCTAATT TATATATGTC
TAGAACCTTA ATAGAATGCT TCAATTACTT TTATAAAATT TATAGATTAA ATATATACAG

11850
TGGACTAAAA TAAATAGAAA TATCTGTATT CCAATCATCA CAAAAAAA ATTCTCATCA
ACCTGATTTT ATTTATCTTT ATAGACATAA GGTTAGTAGT GTTTTTTTTT TAAGAGTAGT

11900
TCTTTGATAT ATAGAAAGTT TTTAAAATTT CAGTTTCACA GATTTTACCA ATTATAGTTT
AGAAACTATA TATCTTTCAA AAATTTTAAA GTCAAAGTGT CTAAAATGGT TAATATCAAA

11950 12000
TATAAGCTTA TGCTAATTAT GTGATCAATG CAAACAAAAG TTGACAATAA TAAAATGAAG
ATATTGCAAT ACGATTAAATA CACTAGTTAC GTTTGTTTTT AACTGTTATT ATTTTACTTC

12050
TCAAATATGA TAGATTCCTA CTATAAATAT AGACTCGTGA ATAATACTCG AATCAGTCTC
AGTTTATACT ATCTAAGGAT GATATTTATA TCTGAGCACT TATTATGAGC TTAGTCAGAG

Fig. 3m

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12100
TGAGGTTTGT CTGAAAAGA AAAACCGAAG AGCTCAAAAC AGAGTGC GTT TGTTCCTGGG
ACTCCAAAAC GACCTTTTCT TTTTGGCTTC TCGAGTTTGT TCTCACGCAA ACAAAGACCC

12150
AATCTTCAAG CCTCTCACTT GCGAAGACGA AGCTTACTCG TAAGGTGATT ATCTTCTTCT
TTAGAAGTTC GGAGAGTGAA CGCTTCTGCT TCGAATGAGC ATTCCACTAA TAGAAGAAGA

12200
TCTTCTTCTT TTCAATTCCCT TTTTCGTTCA TCTGAAATGT GAAATCATGT GACGTGACGA
AGAAGAAGAA AAGTTAAGGA AAAAGCAAGT AGACTTTACA CTTTAGTACA CTGCACTGCT

12250
TTAGGTTAAC GATCGAATTT CTTAATTTTCG TATATGATTA TCTTCTAGTT TCTTGATCAG
AATCCAATTG CTAGCTTAAA GAATTAAAGC ATATACTAAT AGAAGATCAA AGAACTAGTC

12300
CACATCTTGT TGTTTTCTTT CAATCGAGAC TGATTCTAGA TGTTCCTAAG GATCTTGTTT
GTGTAGAACA ACAAAGAA GTTAGCTCTG ACTAAGATCT ACAAGAATTC CTAGAACAAG

12350
GATGAACCTT GCATGAATCA TCCATATCGA CGAACTGGTC TGATCTTCTT GTTGTTATGG
CTACTTGAAA CGTACTTAGT AGGTATAGCT GCTTGACCAG ACTAGAAGAA CAACAATACC

12400
ATTAAGTTTC TTGAGATACA AGAAAGGCTT CAATGATCAA TCTGATCTGT TTTGATGAAC
TAATTCAAAG AACTCTATGT TCTTTCCGAA GTTACTAGTT AGACTAGACA AACTACTTG

12450
ACAAATCTTT ATCTTTGAAC CATGGATAAG GTCAATTTCA CACCATGGCT GGAGGAAGTT
TGTTTAGAAA TAGAACTTG GTACCTATTC CAGTTAAAGT GTGGTACCGA CCTCCTTCAA

12500
TATCACCGGC GTCATCTTTG GAAGATGTAA AGGCATACGT CAATGCTGTG GAGGTGCGAT
ATAGTGGCCG CAGTAGAAAC CTTCTACATT TCCGTATGCA GTTACGACAC CTCCAGCGTA

12550
TGCAGGAAAT GGAACCTGCA AGATTTGGAA TGTTTGTAAG ACTCTTTCTG GTTTTACAG
ACGTCCTTTA CCTTGGACGT TCTAAACCTT ACAAACATTC TGAGAAAGCA CCAAATGTCT

12600
CTCCTAGGTG TGTTCGTTT GCTCTTAAAC AGTCTAAAGA ACAATGACAC ATGTGAGAAT
GAGGATCCAC ACAAACCAA CGAGAATTG TCAGATTTCT TGTTACTGTG TACACTCTTA

12650
TGATTCTGAT GTTATTTTTC TCTTTGTAGG ATCGGTATGC CTACTTTCAG TGCACGCATG
ACTAAGACTA CAATAAAAAG AGAAACATCC TAGCCATACG GATGAAAGTC ACGTGCCTAC

12700
CAGGACCTCT TGAAAGATCA CCCGAGTCTG TGTCTTGGTT TAAATGTCTT ACTTCCACCT
GTCCTGGAGA ACTTTCTAGT GGGCTCAGAC ACAGAACCAA ATTTACAGAA TGAAGGTGGA

12750
GAGTATCAGT TAACCATAAC TCCCGAGGCT AGCGAAGAGT TTCATAAGGT GGTGGAAGA
CTCATAGTCA ATTGGTATGG AGGGCTCCGA TCGCTTCTCA AAGTATTCCA CCAACCTTCT

12800
AGCGTACCAG TACCACCAA GGTGGTTGGA AGAAGTCTAC CACGTCCGGA GCCTACCATA
TCGCATGGTC ATGGTGGTTT CCACCAACCT TCTTCAGATG GTGCAGGCCT CGGATGGTAT

12850
GATGATGCGA CTTCATACCT TATTGCTGTG AAGGAAGCCT TTCATGATGA ACCTGCAAAA

12900
GATGATGCGA CTTCATACCT TATTGCTGTG AAGGAAGCCT TTCATGATGA ACCTGCAAAA

Fig. 3n

CTACTACGCT GAAGTATGGA ATAACGACAC TTCCTTCGGA AAGTACTACT TGGACGTTTT

13050
TATGGGGAAA TGCTTAAGCT CTTGAAAGAT TTAAAGCTC GCAGGTATGT ATTAGTTCTT
ATACCCCTTT ACGAATTCGA GAACCTTCTA AAATTCGAG CGTCCATACA TAATCAAGAA

13100
TTCTCCATGT TATGTTGAT TTTTTCAGTC TACAGAACAA ACACATTATG TGAATTGATT
AAGAGGTACA ATACAACTA AAAAAGTCAG ATGTCTTGTT TGTGTAATAC ACTTAAGTAA

13150
CTGATGTTAC TAAGTCTCTT TGTAGAGTCG ATGCCGCTTG TGTATTGCT AGGGTGGAGG
GACTACAATG ATTCAGAGAA ACATCTCAGC TACGGCGAAC ACAGTAACGA TCCACCTCC

13200
AACTCATGAA AGATCACTTG AATCTGCTTT TTGGTTTCTG TGTCTTCCTT TCAGCTACAA
TTGAGTACTT TCTAGTGAAC TTAGACGAAA AACCAGAAC ACAGAAGGAA AGTCGATGTT

13250
CGAGTTTTAC CACGAAGCTT AAGGTATAGA GTGCTTATAG TTACCATTG ATGTTTCCTA
GCTCAAAATG GTGCTTCGAA TTCCATATCT CACGAATATC AATGGTAAAC TACAAAGGAT

13300
TATGTTAACT TGTGGTTTAA GTAACAAAT TGTCCATGTG CAGGCAAGGT TTCAGGGCGA
ATACAATTGA ACACCAAATT CATTGTTTTA ACAGGTACAC GTCCGTTCCA AAGTCCCGCT

13350
TGGTAGTCAA GTAGTTGACT CAGTTCTTCA GATAATGAGA ATGTACGGTG AGGGAAACAA
ACCATCAGTT CATCAACTGA GTCAAGAAGT CTATTACTCT TACATGCCAC TCCCTTTGTT

13400
GTCCAAACAT GATGCGTATC AGGAGGTAGG CTTCTTGTA GGATACTTTG TGTGTGTGT
CAGGTTTGTA CTACGCATAG TCCTCCATCC GAAGAACCAT CCTATGAAAC ACAACACACA

13450
TGCACTTTCT TAGTTCTTTG GTTTGATTG CTTTGTTATC TTTTGCAGGT CGTTGCACTT
ACGTGAAAGA ATCAAGAAAC CAACTAAAC GAAACAATAG AAAACGTCCA GCAACGTGAA

13500
GTTTCAAGGTC ATGACGATTT AGTCATGGAG CTTTCACAAA TTTTGAAGTGA TCCACCTACT
CAAGTCCCAG TACTGCTAAA TCAGTACCTC GAAAGTGTTT AAAACTGACT AGGTGGATGA

13550
GGAGTCTAGA GATAGCCAGA TAGCTAAGGA GAGTACTGGA AGACTGTAAT ATACCATAAG
CCTCAGATCT CTATCGGTCT ATCGATTCTT CTCATGACCT TCTGACATTA TATGGTATTC

13600
AGACGAAAAA GAAAGTAGAG CTTCTCACGA AAAGAGAGTG TTTTGTAGTT TCTTTTGCAA
TCTGCTTTTT CTTTCATCTC GAAGAGTGCT TTTCTCTCAC AAAATCAAA AGAAAACGTT

13650
ACATTAGAGT TTTGTTTGAT TAACATGACA TTCAAAAATA TGCTATGCTT CTATGTTGAG
TGTAATCTCA AAACAACTA ATTGTACTGT AAGTTTTTAT ACGATACGAA GATACAACCTC

13700
GTGTACAATG AATTGGTGTA TAAGAGACTA AAAGAGAGTG TATAGTTTCT TTGTTGAGGT
CACATGTTAC TTAACCACAT ATTCTCTGAT TTTCTCTCAC ATATCAAAGA AACAACCTCA

13750
TTCTTTTATG TTGAGGTGTT CAATATGCTA TTTTCAGGGT AATCTTTTTA TAAGAACTG
AAGAAAATAC AACTCCACAA GTTATACGAT AAAAGTCCCA TTAGAAAAAT ATTCTTTGAC

13800
13850
13900

Fig. 3o

27/43

13950
AGAAGGGAAA CACTCAAAAA ACAGAGTTCA ACGTAGAAAC AAAACAGAG AGGTGAACTC
TCTTCCCTTT GTGAGTTTTT TGTCTCAAGT TGCATCTTTG TTTTGTCTC TCCACTTGAG

14000
ATGAAAGATC AATTTAACCT GCTTGTGATG ATTGGCTTAT CAAGAGAATT GAAGAGATTC
TACTTTCTAG TTAAATTGGA CGAACACTAC TAACCGAATA GTTCTCTTAA CTTCTCTAAG

14050 14100
ACGATTACAC AAATTCAATT CTTAAAGACA AGAGTAGACT GCTAATTCTT ATTAAGGCTG
TGCTAATGTG TTAAAGTTAA GAATTCTGT TCTCATCTGA CGATTAAGAA TAATCCGAC

14150
TTAATGCTTC TTGAGAGCAT TGACCTTTTC CCTGAGGTAA TAAAGCTTGG CTCTTCTTAC
AATTACGAAG AACTCTCGTA ACTGGAAAAG GGACTCCATT ATTTCAAGC GAGAAGAATG

14200
TTTCTTCTTG TCCACCACCT TAATCACCTT CAGGTTTGGG GAATACCTGT CACCAAAACA
AAAGAAGAAC AGGTGGTGGA ATTAGTGGA GTCCAAACCC CTATGGACA GTGGTTTTGT

14250
CCTCCACTTA CATCAGTATT TTCCATGACC AAGGCAAACA AAGAGAACAT ACAAACATG
GGAGGTGAAT GTAGTCATAA AAGTACTGG TTCCGTTTGT TTCTCTTGTA TGTTTTGTAC

14300
GTGGCTCTTG ATTATAATAA TGGCTCTTAA TGGTCATATA CAAAAGTCTG AGAGAAAAAG
CACCGAGAAC TAATATTATT ACCGAGAATT ACCAGTATAT GTTTTCAGAC TCTCTTTTTC

14350 14400
ATTAAAGTGG CTGCACAAGC TTGAAGCTTG AAGTTACTTA CAAGGGGAAC ATGGATTCTGA
TAATTTACAC GACGTGTTTCG AACTTCGAAC TTCAATGAAT GTTCCCCTTG TACCTAAGCT

14450
CGCCCACTCC AGCAACAAGC CTTCTAATTC TAAATGTTGA GTTGAGACCA GCATTACGCC
GCGGGTGAGG TCGTTGTTTCG GAAGATTAAG ATTTACAAC TAACTCTGGT CGTAATGCGG

14500
TTGCTATGAC GACGCCTTTT ACGATTGATA CACGCCTCTT GTTCTCAGGC ACTTCTGTG
AACGATACTG CTGCGGAAAA TGCTAACTAT GTGCGGAGAA CAAGAGTCCG TGAAGGACAA

14550
CAAACAAAGT AAATGAAAGG TTCACTTAG AAGATGAAAG ATAGTTTGAT CTTACTCACC
GTTGTTTTCA TTTACTTTCC AAAGTGAATC TTCTACTTTC TATCAAAC TAATGAGTGG

14600
CAAGAAAAAG AAATTACAAC CTAGGCCAAC AGTAGTTACC ACTTTTAGCT GCACAATGTA
GTTCTTTTTT TTTAATGTTG GATCCGTTG TCATCAATGG TGAAAATCGA CGTGTTACAT

14650 14700
ACCAGGCTTT ATCTCTGGAA TCTCTCTAAG AGTTCTCACT TCCTCAACTG CTTCTTGTC
TGGTCCGAAA TAGAGACCTT AGAGAGATT TCAAGAGTGA AGGAGTTGAC GAAGGAACAG

14750
TACAACTGTC AGAGGATTGT GACATCGGTG CTTCTTGTC TACATGATAT ATCTAAATAC
ATGTTAGACG TCTCTTAACA CTGTAGCCAC GAAGGAACAG ATGTACTATA TAGATTTATG

14800
AAGTGTCAGT TTCGAGTTGT AGTACCTGCA TAATATGCTT AGCGGTTTTA TCAAGCCGCT
TTCACAGTTC AAGCTCAACA TCATGGACGT ATTATACGAA TCGCCAAAAT AGTTCGGCGA

14850
TAAACTTGAT TCTCTGAGGC ACAACACAAT CTGACTCAGG GGATCCTTGA ACAGAATCTC

Fig. 3p

09869582.022802

ATTTGA ACTA AGAGACTCCG TGTGTGTGTTA GACTGAGTCC CCTAGGAACT TGTCTTAGAG

14900

CAGTGGTGA AAAACACCTC GACGAAAAGT TTTGTTTCTG CCAAAAAAAT ATTCCCAAGA
GTCACCACCT TTTGTGGAG CTGCTTTTCA AAACAAAGAC GGTTTTTTTA TAAGGGTTCT

200220"22559860

(2) CCCTCACACATTTCTTATCTTTTGTCTCAATAGATTCCATTGATTCAAAACAAAATTTTCATTAAAGATTTCACAACTCCACACA 86
 (4) -----GATTCA-CAAAAACCTTTTC-TTCAGATT-CACAACTCTCATCACAA 42
 (2) ---CTTCC-----AAACACAATTAAAGAGAGGAAAAAGAAATCAATAACCTATAAAATAAAAAATCAGACAAAACAGA 154
 (4) CCCTTCAAAAAGAGAAAAGATCTAAAGAAATAACAAGAGCCCTAATATCAAAATCACAAACCAAAAAACCAAGAAAG-CTAATTAA 127
 (2) AGTTTCTCTTCTTCTTCTTAAAGCTAGTACCTTTTGTCTTGAAA-TTAGGGTTAATTTCTTTTTTCCAAATACCATCAATTCT 238
 (4) AGTTTCTCTCTAGCTATTCTCTT---CTTTCTTGTCTTGAAAACTAGGGTTTACTT----- 184
 (2) CCAGACCATAAAAACTCAAAAAGATCAGATCTTTCTCTGAAAAAGAGATACCCAACCTTATGTTTTGTTGTTCTGTATATAG 321
 (4) -----CACCAAAAGATAAGATCTTTTCCCCAGAAAAAGCAATACCCAAGTCACTTTCTGTGTCTCTGTATATAG 253
 (2) ATAAAA-CATTACATACCCATATTGTGTATAGACATAAAAGTGGAATTAAGGTAACAAAAAGAA----- 386
 (4) ATAAAAATTACATACCTTAATAAGGTTACACAAATAGCTATAAAAGAGGGAAAAAATAGATAGGGATTTTTGGGGTGAGGAAAG 338
 ATGGGAAGAGGAAGAGTAGAGCTGAAGAGGATAGAGAACAAAATCAACAGACAAGTAACGTTTGCAAAGCGTAGGAACGGTTTGTGAAG 476
 C T A A T C A 428
 M G R G R V E L K R I E N K I N E O V T F A K R R N O L L K 30
 AAAGCTTATGAAATTGCTGTTCTCTGTGATGCTGAAGTTGCTCTCATCATCTTCTCCAAACCGTGGAAGCTCTATGAGTTTTCAGCTCC 566
 GC T C CT G C C A 518
 K A Y E L S V L C D A E V A L I I F S N R G K L Y E F C S S 60
 S V T
 TCAAACATGCTCAAGACACTTGATCGGTACCAGAAATGCAGCTATGGATCCATTGAAGTCAACAACAAACCTGCCAAAGAACTTGAGAAC 656
 C G AA T G T C T G 608
 S N M L K T L D R Y Q K C S Y G S I E V N N K P A K E L E N 90
 AGCTACAGAGAATATCTGAAGCTTAAGGGTAGATATGAGAACCTTCAACGTCACAGAGAAATCTTCTTGGGGAGGATTAGGACCTTTG 746
 G CT G A A T G G A C T C 698
 S Y R E Y L K L K G R Y E N L Q R Q Q R N L L O E D L O P L 120
 AATTCAAAGGAGTTAGAGCAGCTTGAGCGTCAACTGGACGGCTCTCTCAAGCAAGTTCCGTCATCAAGACACAGTACATGCTTGACCAG 836
 C A G C G T 788
 N S K E L E O L E R Q L D O S L K Q V R S I K T Q Y M L D Q 150
 CTCTCGGATCTTCAAAATAAAGAGCAAAATGTTGCTTGAAACCAATAGAGCTTTGGCAATGAAGCTGGATGATATGATTGGTGTGAGAAGT 926
 T GG G T C TG C T A C C CA 878
 L S D L O N K E Q M L L E T N R A L A M K L D M I O V R S 180
 G I D A 2 E H
 CATCATATG---GGAGGATGGGAAGGCGGTGAA---CAGAATGTTACCTACGGCGCATCAAGCTCAGTCTCAGGGACTATACCAAGCCT 1010
 C AGGA T TCAA A G T GA C G T AT 968
 M H M - G G W E G O E - Q N Y T Y A H Q A Q S Q O L Y Q P 208
 I Q D Q I A Q P E S 210
 CTGAATGCAATCCAACCTCTGCAAAATGGGGTATGATAATCCAGTATGCTCTGAGCAAATCACTGCGACAACACAAGCTCAGGCGCAGCCG 1100
 TG C T T A AGCC G A GG T GG TG G T C A AA 1058
 L E C N P T L O M G Y D N P V C S E Q I T A T T Q A Q A Q P 238
 D I S H M A V V O S Q 240
 GGAAACGGTTACATTCCAGGATGGATGCTCTGAGAATCATGTACTGTGATGAAGCTCACCCACAAAAGACCTTATATATATATAAGTAT 1190
 C C T C G GCGATACTTCTTCCCCAATAAAGATCTTAAGCAAGTACTGGTGGGGTCTTCGTGGT 1148
 G N G Y I P G W M L End 248
 250
 (2) AGATACAAGACTTGGATTGTTAGACATAAGTGGCTAATATAATGGTCTGAGGATCTTCTAGACATTGTATCTTTTGGGAATCCTT 1277
 GCTTATATTAAGAATTC 1294
 (4) GTGATCTTAGATCTTATGCATATGAATAATAATGTTATTGCACAAGACTTTTGCTTTTGTAGACACAAGTGCTATAGCTGTAATAG 1235
 CCTTCAACATCTCTCTTCTGTTTCAGGATTGTTTGTGCTATTGTAATTGCTTATATATGTATGGTTTGTATAATGTGTGAAATGT 1322
 S S
 TAACATCGACCATGTCTCATCTGGTGA_n
 S S

09869582 022802

Figure 4

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Sequence Range: -12 to 815

38
CCCGGATCCA AAATGGGAAG AGGGAGAGTA GAATTGAAGA GGATAGAGAA CAAGATCAAT
K M G R G R V E L K R I E N K I N>

88
AGGCAAGTGA CGTTTGCAAA GAGAAGGAAT GGTCTTTTGA AGAAAGCATA CGAGCTTTCA
R Q V T F A K R R N G L L K K A Y E L S>

138
GTTCTATGTG ATGCGGAAGT TGCTCTCATC ATCTTCTCAA ATAGAGGAAA GCTGTACGAG
V L C D A E V A L I I F S N R G K L Y E>

188
TTTTGCAGTA GTTCGAGCAT GCTTCGACA CTGGAGAGGT ACCAAAAGTG TAACTATGGA
F C S S S S M L R T L E R Y Q K C N Y G>

238 288
GCACCAGAAC CCAATGTGCC TTCAAGAGAG GCCTTAGCAG AACTTAGTAG CCAGCAGGAG
A P E P N V P S R E A L A E L S S Q Q E>

338
TATCTCAAGC TTAAGGAGCG TTATGACGCC TTACAGAGAA CCCAAAGGAA TCTGTTGGGA
Y L K L K E R Y D A L Q R T Q R N L L G>

388
GAAGATCTTG GACCTCTAAG TACAAAGGAG CTTGAGTCAC TTGAGAGACA GCTTGATTCT
E D L G P L S T K E L E S L E R Q L D S>

438
TCCTTGAAGC AGATCAGAGC TCTCAGGACA CAGTTTATGC TTGACCAGCT CAACGATCTT
S L K Q I R A L R T Q F M L D Q L N D L>

488
CAGAGTAAGG AACGCATGCT GACTGAGACA AATAAACTC TAAGACTAAG GTTAGCTGAT
Q S K E R M L T E T N K T L R L R L A D>

538 588
GGGTATCAGA TGCCACTCCA GCTGAACCCT AACCAAGAAG AGGTTGATCA CTACGGTCGT
G Y Q M P L Q L N P N Q E E V D H Y G R>

638
CATCATCATC AACAAACAACA AACTCCCAA GCTTCTTCC AGCCTTTGGA ATGTGAACCC
H H H Q Q Q Q H S Q A F F Q P L E C E P>

688
ATTCTTCAGA TCGGGTATCA GGGGCAACAA GATGGAATGG GAGCAGGACC AAGTGTGAAT
I L Q I G Y Q G Q Q D G M G A G P S V N>

738
AATTACATGT TGGGTTGGTT ACCTTATGAC ACCAACTCTA TTTGAATCTT TCTCACTTAA
N Y M L G W L P Y D T N S I * I F L T *>

788
TCAATCCCTC TCTTTTTTTT TTTGACATTT TTAAGATGAT GTTTCTA
S I P L F F F L T F L R * C F X>

Fig. 5

09869582-1022802

Sequence Range: -1699 to 3669

-1650
GAATTCCCCG GATCTCCATA TACATATCAT ACATATATAT AGTATACTAT CTTTAGACTG
CTTAAGGGGC CTAGAGGTAT ATGTATAGTA TGTATATATA TCATATGATA GAAATCTGAC

-1600
ATTTCTCTAT ACACTATCTT TTAACCTATG TATCGTTTCA AAACCTCAGGA CGTACATGTT
TAAAGAGATA TGTGATAGAA AATTGAATAC ATAGCAAAGT TTTGAGTCCT GCATGTACAA

-1550
TTAAATTTGG TTATATAACC ACGACCATTT CAAGTATATA TGTCATACCA TACCAGATTT
AATTTAAACC AATATATTGG TGCTGGTAAA GTTCATATAT ACAGTATGGT ATGGTCTAAA

-1500
AATATAACTT CTATGAAGAA AATACATAAA GTTGGATTAA AATGCAAGTG ACATCTTTTT
TTATATTGAA GATACTTCTT TTATGTATTT CAACCTAATT TTACGTTTAC TGTAGAAAAA

-1450
AGCATAGGTT CATTGGGCAT AGAAGAAATA TATAACTAAA AATGAACTTT AACTTAAATA
TCGTATCCAA GTAAACCGTA TCTTCTTTAT ATATTGATTT TTAAGTGAAT TTGAATTTAT

-1400
GATTTTACTA TATTACAATT TTTTCTTTTT ACATGGTCTA ATTTATTTTT CTAAAATTAG
CTAAAATGAT ATAATGTTAA AAAAGAAAAA TGTACCAGAT TAAATAAAAA GATTTTAAATC

-1350
TATGATTGTT GTTTTGATGA AACAATAATA CCGTAAGCAA TAGTTGCTAA AAGATGTCCA
ATACTAACAA CAAACTACT TTGTTATTAT GGCATTCGTT ATCAACGATT TTCTACAGGT

-1300
AATATTTATA AATTACAAAG TAAATCAAAT AAGGAAGAAG ACACGTGGAA AACACCAAAT
TTATAAATAT TTAATGTTTC ATTTAGTTTA TTCCTTCTTC TGTGCACCTT TTGTGGTTTA

-1250
AAGAGAAGAA ATGGAAAAAA CAGAAAGAAA TTTTAAACA AGAAAAATCA ATTAGTCTCT
TTCTCTTCTT TACCTTTTTT GTCTTTCTTT AAAAAATTGT TCTTTTTAGT TAATCAGGAG

-1200
AAACCTGAGA TATTTAAAGT AATCAACTAA AACAGGAACA CTGACTAAC AAAGAAATTT
TTGGACTCT ATAAATTCA TTAGTTGATT TTGTCCTTGT GAACTGATTG TTTCTTTAAA

-1150
GAAATGTGGT CCAACTTTCA CTTAATTATA TTGTTTCTC TAAGGCTTAT GCAATATATG
CTTTACACCA GGTGAAAGT GAATTAATAT AACAAAAGAG ATTCCGAATA CGTTATATAC

-1100
CCTTAAGCAA ATGCCGAATC TGTTTTTTTT TTTTGTTATT GGATATTGAC TGAAAAAAG
GGAATTCGTT TACGGCTTAG ACAAAAAAAA AAAACAATAA CCTATACTG ACTTTTATTC

-1050
GGGTTTTTTC ACACTTGAAG ATCTCAAAG AGAAAACTAT TACAACGGAA ATTCATTGTA
CCCAAAAAAG TGTGAACCTC TAGAGTTTTC TCTTTTGATA ATGTTGCCTT TAAGTAACAT

-1000
AAAGAAGTGA TTAAGCAAAT TGAGCAAAGG TTTTATGTG GTTTATTTCA TTATATGATT
TTCTTCACT AATTCGTTTA ACTCGTTTCC AAAAAATACAC CAAATAAAGT AATATACTAA

-950
GACATCAAAT TGTATATATA TGGTTGTTTT ATTTAACAAT ATATATGGAT ATAACGTACA
CTGTAGTTTA ACATATATAT ACCAACAAAA TAAATTGTTA TATATACCTA TATTGCATGT

-900
GATTTTACTA TATTACAATT TTTTCTTTTT ACATGGTCTA ATTTATTTTT CTAAAATTAG
CTAAAATGAT ATAATGTTAA AAAAGAAAAA TGTACCAGAT TAAATAAAAA GATTTTAAATC

-850
GATTTTACTA TATTACAATT TTTTCTTTTT ACATGGTCTA ATTTATTTTT CTAAAATTAG
CTAAAATGAT ATAATGTTAA AAAAGAAAAA TGTACCAGAT TAAATAAAAA GATTTTAAATC

-800
GATTTTACTA TATTACAATT TTTTCTTTTT ACATGGTCTA ATTTATTTTT CTAAAATTAG
CTAAAATGAT ATAATGTTAA AAAAGAAAAA TGTACCAGAT TAAATAAAAA GATTTTAAATC

Fig. 6a

-750

AACTAAATAT GTTTGATTGA CGAAAAAATA TATATGTATG TTTGATTAAAC AACATAGCAC
TTGATTTATA CAAACTAACT GCTTTTTTTT ATATACATAC AAACATAATTG TTGTATCGTG

-700

ATATTCAACT GATTTTTGTC CTGATCATCT ACAACTTAAT AAGAACACAC AACATTGAAA
TATAAGTTGA CTAAAAACAG GACTAGTAGA TGTGAATTA TTCTTGTGTG TTGTAACTTT

-650

AAATCTTTGA CAAAATACTA TTTTGGGTT TGAAATTTG AATACTTACA ATTATTCTTC
TTTAGAAACT GTTTTATGAT AAAAACCCAA ACTTTAAAC TTATGAATGT TAATAAGAAG

-600

TCGATCTTCC TCTCTTTCCT TAAATCCTGC GTACAAATCC GTCGACGCAA TACATTACAC
AGCTAGAAGG AGAGAAAGGA ATTTAGGACG CATGTTTAGG CAGCTGCGTT ATGTAATGTG

-550

AGTTGTCAAT TGGTTCTCAG CTCTACCAA AACATCTATT GCCAAAAGAA AGGTCTATTT
TCAACAGTTA ACCAAGAGTC GAGATGGTTT TTGTAGATAA CGGTTTCTT TCCAGATAAA

-500

-450

GTACTTCACT GTTACAGCTG AGAACATTAA ATATAATAAG CAAATTTGAT AAAACAAAGG
CATGAAGTGA CAATGTCGAC TCTTGTAAAT TATATTATTC GTTTAACTA TTTTGTTCCT

-400

GTTCTCACCT TATTCCAAA GAATAGTGTA AAATAGGGTA ATAGAGAAAT GTTAATAAAA
CAAGAGTGGA ATAAGGTTT CTTATCACAT TTTATCCCAT TATCTCTTTA CAATTATTTT

-350

GGAAATTAAA AATAGATATT TTGGTTGGTT CAGATTTTGT TTCGTAGATC TACAGGGAAA
CCTTTAATTT TTATCTATAA AACCAACCAA GTCTAAAAA AAGCATCTAG ATGTCCTTTT

-300

TCTCCGCCGT CAATGCAAAG CGAAGGTGAC ACTTGGGGAA GGACCAGTGG TCCGTACAAT
AGAGGCGGCA GTTACGTTTC GCTTCCACTG TGAACCCCTT CCTGGTCACC AGGCATGTTA

-250

GTTACTTACC CATTTCTCTT CACGAGACGT CGATAATCAA ATTGTTTATT TTCATATTTT
CAATGAATGG GTAAAGAGAA GTGCTCTGCA GCTATTAGTT TAACAAATAA AAGTATAAAA

-200

-150

TAAGTCCGCA GTTTTATTAA AAAATCATGG ACCCGACATT AGTACGAGAT ATACCAATGA
ATTGAGCGT CAAAATAATT TTTTAGTACC TGGGCTGTAA TCATGCTCTA TATGGTTACT

-100

GAAGTCGACA CGCAAATCCT AAAGAAACCA CTGTGGTTTT TGCAAAACAAG AGAAACCAGC
CTTCAGCTGT GCGTTTAGGA TTTCTTTGGT GACACCAAAA ACGTTTGTTT TCTTTGGTCG

-50

TTTAGCTTTT CCCTAAAACC ACTCTTACCC AAATCTCTCC ATAAATAAAG ATCCCGAGAC
AAATCGAAAA GGGATTTTGG TGACAATGGG TTTAGAGAGG TATTTATTTT TAGGGCTCTG

1

TCAAACACAA GTCTTTTAT AAAGGAAAGA AAGAAAAACT TTCCTAATTG GTTCATACCA
AGTTTGTGTT CAGAAAAATA TTTCTTTCTT TTCTTTTGA AAGGATTAAC CAAGTATGGT

51

AAGTCTGAGC TCTTCTTTAT ATCTCTCTG TAGTTTCTTA TTGGGGGTCT TTGTTTTGTT
TTCAGACTCG AGAAGAAATA TAGAGAGAAC ATCAAAGAAT AACCCCGAGA AACAAAACAA

101

151

TGTTTCTTTT AGAGTAAGAA GTTCTTTAA AAAGGATCAA AAATGGGAAG GGGTAGGGTT

Fig. 6b

09869582.022807

ACCAAGAAAA TCTCATTCTT CAAAGAATTT TTTCTAGT TTTACCCTTC CCCATCCCAA

201
CAATTGAAGA GGATAGAGAA CAAGATCAAT AGACAAGTGA CATTCTCGAA AAGAAGAGCT
GTAACTTCTT CCTATCTCTT GTTCTAGTTA TCTGTTCAC TGAAGAGCTT TTCTTCTCGA

251
GGTCTTTTGA AGAAAGCTCA TGAGATCTCT GTTCTCTGTG ATGCTGAAGT TGCTCTTGTT
CCAGAAAACT TCTTTCGAGT ACTCTAGAGA CAAGAGACAC TACGACTTCA ACGAGAACAA

301
GTCTTCTCCC ATAAGGGGAA ACTCTTCGAA TACTCCACTG ATTCTTG GTA ACTTCAACTA
CAGAAGAGGG TATTCCCCTT TGAGAAGCTT ATGAGGTGAC TAAGAACCAT TGAAGTTGAT

351 401
ATTCTTTACT TTTAAAAAA TCTTTTAATC TGCTACTTTA TATAGTTTTT TTCCCCCTTA
TAAGAAATGA AAATTTTTTT AGAAAATTAG ACGATGAAAT ATATCAAAAA AAGGGGGAAT

451
AGTTGACTAC TTGATTGACC CTAATTATTC ACTACTGCTT TTGTTATATA TTTTCTAGGG
TCAACTGATG AACTAAACGG GATTAATAAG TGATGACGAA AACAATATAT AAAAGATCCC

501
CTTCCATTTT TGGATTTTTT GATTAGCCAG AAAAATGTTT AATACAAAT TGTATAATTT
GAAGGTAAAA ACCTAAAAAA CTAATCGGTC TTTTACAAA TTATGTTTAA ACATATTAAA

551
AAAAATCAAA ACTTTAGGGC CGTAGTGAAG TGAACCCTAG AACACACAGA TTATACCATA
TTTTTAGTTT TGAAATCCCG GCATCACTTC ACTTGGGATC TTGTGTGTCT AATATGGTAT

601
GTAATTACCT TGATATATTG TGCAATATTT ATCAGCATCA TATCTTCAAA CTCAAGAGAT
CATTAATGGA ACTATATAAC ACGTTATAAA TAGTCGTAGT ATAGAAGTTT GAGTTCTCTA

651 701
ATAGAAGGGT ATGTTAATCT TTGAACTAGG GTTTTGATCC CTAATCATA ATGAATCCTT
TATCTTCCCA TACAATTAGA AACTTGATCC CAAAAC TAGG GATTGAGTAT TACTTAGGAA

751
TTGTTCTCCA ATAGCCATGT CTTTCGAATT TGCAGATCTA AGCTCTAATT GATGCCATAG
AACAAGAGGT TATCGGTACA GAAAGCTTAA ACGTCTAGAT TCGAGATTAA CTACGGTATC

801
TAAGAAAATA AGATCTGTAG TTTTCACTCG CTCACTGAGT TCGAGTTTAA AATGAAGTGT
ATTCTTTTAT TCTAGACATC AAAAGTGAGC GAGTGACTCA AGCTCAAAAT TTACTTCACA

851
CGTTTCTTTT TTCATATATA GTTGCAACTG GATTATAATT AAAAAATATT ATGGGACGAG
GCAAAGAAAA AAGTATATAT CAACGTTGAC CTAATATTAA TTTTATATA TACCCTGCTC

901
AAAATAATTT AAAATAGATA TAGATAACAA TGTCAAATTG AGAATTTTTT ATTAGAAAGA
TTTTATTAAA TTTTATCTAT ATCTATTGTT ACAGTTTAA TCTTAAAAAA TAATCTTTCT

951 1001
ATATTTAACT TACGAGTTGT TTTTTCAG CTGTAAAAGA ATATCTAATT TGTTCTCACG
TATAAATTGA ATGCTCAACA AAAAAAGTC GACATTTTCT TATAGATTAA ACAAGAGTGC

1051
ACTGTGTCTT CATGTTTTGC AAATCTAAGC AAAGAAAATG TTTAACTCG GATCTTAAGA
TGACACAGAA GTACAAAACG TTTAGATTCT TTTCTTTTAC AAATTTGAGC CTAGAATTCT

Fig. 6c

09869582-1022502

1101
TTATGAACTC GTAATATAAA ACACTATATA GTATTAAATT TGAAGTAGTG TTGCTTCTTT
AATACTTGAG CATTATATTT TGTGATATAT CATAATTTAA ACTTGATCAC AACGAAGAAA

1151
TGCTACTTTG ACTTTAGAAA TTAAACTGA AACAAAGATG TCAAATCTGA GTAGGGAGTC
ACGATGAAAC TGAAATCTTT AATTTTGACT TTGTTTCTAC AGTTTAGACT CATCCCTCAG

1201
TTTGACCTCT GGGGATCCAT AAAAAGAACT AACTCCATCC TAAAATCGGC TTCTTACCGA
AAACTGGAGA CCCCTAGGTA TTTTCTTGA TTGAGGTAGG ATTTTAGCCG AAGAATGGCT

1251
TGGTCAAACT TAGCTCCAAC AAGCAACAGC TGTCTTCTT TTTTTTTTTT TTTTTTTTTT
ACCACTTTGA ATCGAGGTTG TTCGTTGTCTG ACAAGAAGAA AAAAAAAAAA AAAAAAAAAA

1301
TTTAAGCATT GTCCTTGTTG TGAAAAAAAA TAAGATTGGT AAATTGGCAA GATTATAATA
AAATTCGTAA CAGGAACAAG ACTTTTTTTT ATTCTAACCA TTTAACCGTT CTAATATTAT

1351
TTTATTATA ATGTGTCGCA CTAAGAAGAT TTTCTGTACC TAATTGTAGC AAAATTAAAG
TAAATAATAT TACACAGCGT GATTCTTCTA AAAGACATGG ATTAACATCG TTTTAATTTT

1401
AAACCGCAGT TAGAACTCGA AGCTAAGAGC ATAGGGTCTA TGATTCATAC TGTTTTGTTA
TTTGGCGTCA ATCTTGAGCT TCGATTCTCG TATCCCAGAT ACTAAGTATG ACAAACAAT

1451
TTATAAAGGT ATCATAGAGA TCGGTACTTG ATTTGTTATA GGAAATCTTG GTTTAATTGC
AATATTTCCA TAGTATCTCT AGCCATGAAC TAAACAATAT CCTTTAGAAC CAAATTAACG

1501
ATAAAACCAT CATTAGATTT ATCCTAAAAT GTGATGATAT TTTGGTCACA TCTCCATATT
TATTTTGGTA GTAATCTAAA TAGGATTTTA CACTACTATA AAACCACTGT AGAGGTATAA

1551
ATTTATATAA TAAAATGATA ATTGGTTGAT GATAAAGCTA ACCCTAATTG TGTGAAATGA
TAAATATATT ATTTTACTAT TAACCAACTA CTATTTTCGAT TGGGATTAAG AACTTTTACT

1601
TCAGTATGGA GAAGATACTT GAACGCTATG AGAGGTACTC TTACGCCGAA AGACAGCTTA
AGTCATACCT CTTCTATGAA CTTGCGATAC TCTCCATGAG AATGCGGCTT TCTGTGGAAT

1651
TTGCACCTGA GTCCGACGTC AATGTATTTT AATAAATATT TCTCCTTTTA ATCCACATAT
AACGTGGACT CAGGCTGCAG TTACATAAAG TTATTTATAA AGAGGAAAAT TAGGTGTATA

1701
ATATTATATC AATCTATTTG TAGTATTGAT GAATTTTATT TGTATAAAAC TTCTGGTACA
TATAATATAG TTAGATAAAC ATCATAACTA CTTAAAATAA ACATATTTTG AAGACCATGT

1751
CAGACAACT GGTGATGGA GTATAACAGG CTTAAGGCTA AGATTGAGCT TTTGGAGAGA
GTCTGTTTGA CCAGCTACCT CATATTGTCC GAATTCCGAT TCTAACTCGA AAACCTCTCT

1801
AACCAGAGGT ACACATTTAC ACTCATCACA TTTCTATCTA GAAAATCGAT CGGGTTCCAT
TTGGTCTCCA TGTGTAAATG TGAGTAGTGT AAAGATAGAT CTTTTAGCTA GCCCAAGGTA

1851
TTTAAAGTAA GTTAAATTC ATTGATGCTA TTGAAATTCA GGCATTATCT TGGGGAAGAC

1901
TTTAAAGTAA GTTAAATTC ATTGATGCTA TTGAAATTCA GGCATTATCT TGGGGAAGAC

1951
TTTAAAGTAA GTTAAATTC ATTGATGCTA TTGAAATTCA GGCATTATCT TGGGGAAGAC

2001
TTTAAAGTAA GTTAAATTC ATTGATGCTA TTGAAATTCA GGCATTATCT TGGGGAAGAC

Fig. 6d

AAATTTTCATT CAATTTTAAG TAACTACGAT AACTTTAAGT CCGTAATAGA ACCCCTTCTG

2051
TTGCAAGCAA TGAGCCCTAA AGAGCTTCAG AATCTGGAGC AGCAGCTTGA CACTGCTCTT
AACGTTTCGTT ACTCGGGATT TCTCGAAGTC TTAGACCTCG TCGTCGAACT GTGACGAGAA

2101
AAGCACATCC GCACTAGAAA AGTATTGCCT TCTGCTATTT CGTTGAACAT ATCTATATAA
TTCGTGTAGG CGTGATCTTT TCATAACGGA AGACGATAAA GCAACTTGTA TAGATATATT

2151 2201
CTTAAACGTT TACAAGTGTT ATTATAATGT GAACATTGAA ATACATATGT GTATGTATCA
GAATTTGCAA ATGTTTCAAA TAATATTACA CTTGTAAGTT TATGTATACA CATACATAGT

2251
ATATATATAT CAGTAATCAA TATCAATTTG ATATGTCTAT AGGTTGGTTC GAATGTATGA
TATATATATA GTCATTAGTT ATAGTTAAAC TATACAGATA TCCAACCAAG CTTACATACT

2301
GTTATGTTGT GTATTTTAAG ACTCCATATT ACTTAAAGTA ATGGGTTGTT AATGTTGATG
CAATACAACA CATAAAATTC TGAGGTATAA TGAATTTTCAT TACCCAACAA TTACAACCTAC

2351
TGTGTGTATG CAGAACCAAC TTATGTACGA GTCCATCAAT GAGCTCCAAA AAAAGGTATG
ACACACATAC GTCTTGGTTG AATACATGCT CAGGTAGTTA CTCGAGGTTT TTTTCCATAC

2401
TAAACCCCT ATCAAATGTA TGTCTTATAG AGAAACGTAT AGGAAAGCTA ATTAACAATC
ATTTTGGGGA TAGTTTACAT ACAGAATATC TCTTTGCATA TCCTTTTCGAT TAATTGTTAG

2451 2501
GTGCCGTTTC GGAAATGACA GGAGAAGGCC ATACAGGAGC AAAACAGCAT GCTTTCTAAA
CACGGCAAAG CCTTTACTGT CCTCTTCCGG TATGTCCTCG TTTTGTCTGA CGAAAGATTT

2551
CAGGTAACAC ATGTCATCAT TTCTCTTTCA TCAACATGTT GTCCATTGCA TTACTGTTAC
GTCCATTGTG TACAGTAGTA AAGAGAAAGT AGTTGTACAA CAGGTAACGT AATGACAATG

2601
CTTCCACTGT TCTGCTCCAC ACTTCCAGCC AAGCTATACC TACGATATCT TCATATCTCC
GAAGGTGACA AGACGAGGTG TGAAGGTCGG TTCGATATGG ATGCTATAGA AGTATAGAGG

2651
ACTTAACTTC GGCACCATTA AATAAAAATA GAAAATCTTT GCAAATTTGT TTGAAATAGC
TGAATTGAAG CCGTGGTAAT TTATTTTAT CTTTGTAGAA CGTTTAAACA AACTTTATCG

2701
ATAGATGTTG TCTATTGATT GATATAATCA CCAGCCTGTA CGTAGATATG GTTTGTCCGT
TATCTACAAC AGATAACTAA CTATATTAGT GGTCCGACAT GCATCTATAC CAAACAGGCA

2751 2801
TTAGTTTTAA GGTGTCTCTC GGATTGAAAA TATTTTGAAA TCTTTTGAAA TGTGTGTCCT
AATCAAAATT CCACAGAGAG CCTAACTTTT ATAAACTTTT AGAAACTTTT ACAAACAGGG

2851
ATCATTCTTA CTTAGCTCAT ATCTATGTAT ATGAATATAG ACACTACTCC TAATTATAAA
TAGTAAGAAT GAATCGAGTA TAGATACATA TACTTATATC TGTGATGAGG ATTAATATTT

2901
ATGTTATAAT AGTTCATTGC ATGAGTGCAA CTGTGAAAAT AACTATTTGT AACCATTGCA
TACAATATTA TCAAGTAACG TACTCACGTT GACACTTTTA TTGATAAACA TTGGTAACGT

Fig. 6e

09869582-022602

2951
TATATATAGT TTCTTCACTT TGAAAAATTGA TGATGATAAT ATGGTTTGAA ATAAATTTGC
ATATATATCA AAGAAGTGAA ACTTTTAACT ACTACTATTA TACCAAACCTT TATTTAAACG

3001
TGGCAGATCA AGGAGAGGGA AAAAATTCTT AGGGCTCAAC AGGAGCAGTG GGATCAGCAG
ACCGTCTAGT TCCTCTCCCT TTTTAAAGAA TCCCGAGTTG TCCTCGTCAC CCTAGTCGTC

3051 3101
AACCAAGGCC ACAATATGCC TCCCCCTCTG CCACCGCAGC AGCACCAAAT CCAGCATCCT
TTGGTTCCGG TGTATACGG AGGGGGAGAC GGTGGCGTCG TCGTGGTTTA GGTCTAGGA

3151
TACATGCTCT CTCATCAGCC ATCTCCTTTT CTCAACATGG GGTAACAAAA AATTACTAAT
ATGTACGAGA GAGTAGTCGG TAGAGGAAAA GAGTTGTACC CCATTGTTTT TTAATGATTA

3201
CAGTCTTAAT TTAAAGCACA TATGTTATGC AAGCTAGTTA CGTTAGGTGT TGTAAATTTCA
GTCAGAATTA AATTTCTGTG ATACAATACG TTCGATCAAT GCAATCCACA ACATTAAAGT

3251
TTGAAGTTAT AGTGTTAGT GATGGTTACA TGATGCTAGA TTTTGAACT AGAAAACCTT
AACTTCAATA TCGACAATCA CTACCAATGT ACTACGATCT AAAACTTTGA TCTTTTGAA

3301
ATTTTAAAAC ATTATTTTAT TAACGTAGGT TAATGCAATG GTCGCCAAAC GAACAACTT
TAAAATTTTG TAATAAAATA ATTGCATCCA ATTACGTTAC CAGCGGTTTG CTTGTTTGAA

3351 3401
ATTAGTGTGG AAAAATGTAC ATGGAATGGT TCGGAAAAGC CTAAGTCGAC TTTTGTGTGT
TAATCACACC TTTTACATG TACCTTACCA ACGCTTTTCG GATTCAGCTG AAAACAACAA

3451
GTTGGTCTAT GTGTTTAAGT ACAATTTTAG TTTGTTAGAT AAATGAAAT AATATATCTT
CAACCAGATA CACAAATTCA TGTTAAATC AAACAATCTA TTTACTTTAA TTATATAGAA

3501
TGACATTTCA CAATGGACTG ATATTTGATT TTCCTTTGTT GTACGGTGAA ACATATGATT
ACTGTAAAGT GTTACCTGAC TATAAACTAA AAGGAAACAA CATGCCACTT TGTATACTAA

3551
ACATATGCAC TTTCATATAT ATCCTATGTA TGATTGTGAA TGCAGTGGTC TGTATCAAGA
TGTATACGTG AAAGTATATA TAGGATACAT ACTAACACTT ACGTCACCAG ACATAGTTCT

3601
AGATGATCCA ATGGCAATGA GGAGGAATGA TCTCGAACTG ACTCTTGAAC CCGTTTACAA
TCTACTAGGT TACCGTTACT CCTCCTTACT AGAGCTTGAC TGAGAACTTG GGCAAATGTT

3651
CTGCAACCTT GGCTGCTTCG CCGCATGA
GACGTTGGAA CCGACGAAGC GCGTACT

Fig. 6f

Fig. 9

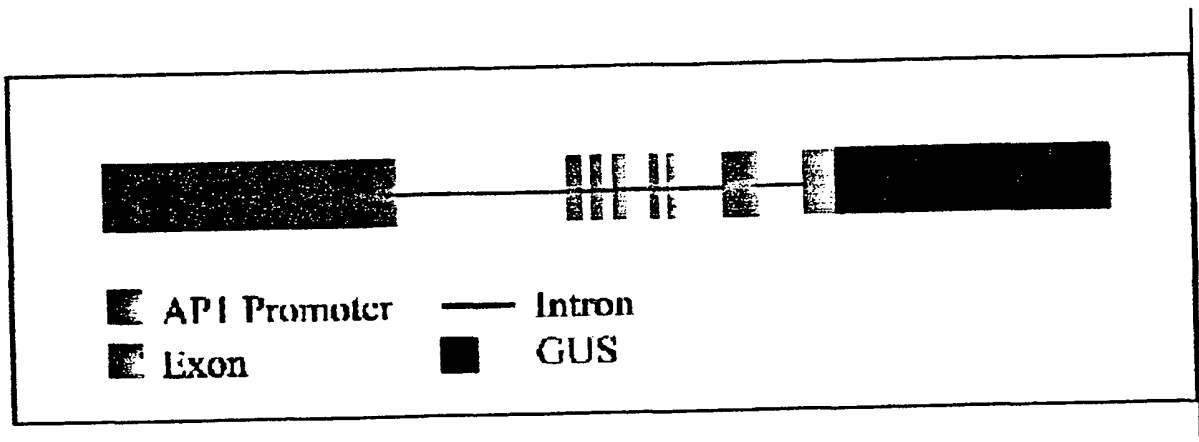


Fig. 7

09869582.022802

Sequence Range: -140 to 1080

GAATTCGGCA CGAGAACTTT CCTAATTGGT TCATACCAA GTCTGAGCTC TTCTTTATAT -91
CTCTCTTGTA GTTCTTATT GGGGGTCTTT GTTTTGTGTTG GTTCTTTTAG AGTAAGAAGT -41
TTCTTAAAAA AGGATCAAAA ATGGGAAGGG GTAGGGTTCA ATTGAAGAGG ATAGAGAACA 10
M G R G R V Q L K R I E N>
AGATCAATAG ACAAGTGACA TTCTCGAAAA GAAGAGCTGG TCTTTTGAAG AAAGCTCATG 60
K I N R Q V T F S K R R A G L L K K A H>
AGATCTCTGT TCTCTGTGAT GCTGAAGTTG CTCTGTGTTGT CTCTCCCAT AAGGGGAAAC 110 160
E I S V L C D A E V A L V V F S H K G K>
TCTTCGAATA CTCCACTGAT TCTTGATGG AGAAGATACT TGAACGCTAT GAGAGGTACT 210
L F E Y S T D S C M E K I L E R Y E R Y>
CTTACGCCGA AAGACAGCTT ATTGCACCTG AGTCCGACGT CAATACAAAC TGGTCGATGG 260
S Y A E R Q L I A P E S D V N T N W S M>
AGTATAACAG GCTTAAGGCT AAGATTGAGC TTTTGGAGAG AAACCAGAGG CATTATCTTG 310
E Y N R L K A K I E L L E R N Q R H Y L>
GGGAAGACTT GCAAGCAATG AGCCCTAAAG AGCTTCAGAA TCTGGAGCAG CAGCTTGACA 360
G E D L Q A M S P K E L Q N L E Q Q L D>
CTGCTCTTAA GCACATCCGC ACTAGAAAAA ACCAACTTAT GTACGAGTCC ATCAATGAGC 410 460
T A L K H I R T R K N Q L M Y E S I N E>
TCCAAAAAAA GGAGAAGGCC ATACAGGAGC AAAACAGCAT GCTTTCTAAA CAGATCAAGG 510
L Q K K E K A I Q E Q N S M L S K Q I K>
AGAGGGAAAA AATTCTTAGG GCTCAACAGG AGCAGTGGGA TCAGCAGAAC CAAGGCCAEE 560
E R E K I L R A Q Q E Q W D Q Q N Q G H>
ATATGCCTCC CCCTCTGCCA CCGCAGCAGC ACCAAATCCA GCATCCTTAC ATGCTCTCTC 610
N M P P P L P P Q Q H Q I Q H P Y M L S>
ATCAGCCATC TCCTTTTCTC AACATGGGTG GTCTGTATCA AGAAGATGAT CCAATGGCAA 660
H Q P S P F L N M G G L Y Q E D D P M A>
TGAGGAGGAA TGATCTCGAA CTGACTCTTG AACCCGTTTA CAACTGCAAC CTTGGCTGCT 710 760
M R R N D L E L T L E P V Y N C N L G C>
TCGCCGCATG AAGCATTTCC ATATATATAT ATTTGTAATC GTCAACAATA AAAACAGTTT 810
F A A *
GCCACATACA TATAAATAGT GGCTAGGCTC TTTTCATCCA ATTAATATAT TTTGGCAAAT 860
GTTTCATGTT CTTATATCAT CATATATAAA TTAGCAGGCT CCTTCTCTCT TTTGTAATTT 910

Fig. 8a

960
GATAAGTTTA TTTGCTTCAA TATGGAGCAA AATTGTAATA TATTTGAAGG TCAGAGAGAA
1010
TGAACGTGAA CTTAATAGAA AAAAAAAAAA AAAAAAAAAA AAAAAAAAAA AAAAAAACC
1060
CGACGTAGCT CGAGGAATTC

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Fig. 8b

Sequence Range: -346 to 1028

GAATTCCGGA TTCACAAAAA CTTTCTTCA GATTACAAT CTCATCACAA CCCTTCAAAA -297
AGAGAAAAGA TCTAAAGAAT AAACAAGAGC CCTAATATCA AATCACAACC AAAAAAACCA -247
AAGAAAGCTA ATTAAAGTTT TCTCTCTAGC TATTCCTCTT CTTTCTTGT TCTTGAAAC -197
TAGGGTTTAC TTCACAAAAA GATAAGATCT TTCCCCAGAA AAAGCAATAC CCAAGTCATG -147
TTTCTGTGTG TCTGTATATA GATAAACAT TACATACCCT AATAAGGTGA CACAAATAGC -97
TATAAAGAG GGAAAATAAG ATAGGGATTT TTTGGGGTGA GGAAAGATGG GAAGAGGAAG -47
M G R G R> 4
AGTAGAGCTC AAGAGGATAG AGAACAAAAT CAACAGACAA GTGACGTTTG CTAAACGTAG 54
V E L K R I E N K I N R Q V T F A K R R>
AAATGGTTTG CTGAAAAAAG CTTATGAGCT TTCTGTTCTC TGCATGCTG AAGTCTCTCT 104
N G L L K K A Y E L S V L C D A E V S L>
CATCGTCTTC TCCAACCGTG GCAAGCTCTA CGAGTTCTGC AGCACCTCCA ACATGCTCAA 154
I V F S N R G K L Y E F C S T S N M L K>
GACACTGGAA AGGTATCAGA AGTGTAGCTA TGGCTCCATT GAAGTCAACA ACAAACCTGC 204 254
T L E R Y Q K C S Y G S I E V N N K P A>
TAAAGAGCTT GAGAACAGCT ACAGAGAGTA CTTGAAGCTG AAAGGTAGAT ATGAAAATCT 304
K E L E N S Y R E Y L K L K G R Y E N L>
GCAACGTCAG CAGAGAAATC TTCTTGGAGA GGATCTTGGG CCTCTGAATT CAAAGGAGCT 354
Q R Q Q R N L L G E D L G P L N S K E L>
AGAGCAGCTT GAGCGTCAAC TAGACGGCTC TCTGAAGCAA GTTCGCTGCA TCAAGACACA 404
E Q L E R Q L D G S L K Q V R C I K T Q>
GTATATGCTT GACCAGCTCT CTGATCTTCA AGGTAAGGAG CATATCTTGC TTGATGCCAA 454
Y M L D Q L S D L Q G K E H I L L D A N>
CAGAGCTTTG TCAATGAAGC TGGAAGATAT GATCGGCGTG AGACATCACC ATATAGGAGG 504 554
R A L S M K L E D M I G V R H H H I G G>
AGGATGGGAA GGTGGTGATC AACAGAATAT TGCCTATGGA CATCCTCAGG CTCATTCTCA 604
G W E G G D Q Q N I A Y G H P Q A H S Q>
GGGACTATAC CAATCTCTTG AATGTGATCC CACTTTGCAA ATTGGATATA GCCATCCAGT 654
G L Y Q S L E C D P T L Q I G Y S H P V>
GTGCTCAGAG CAAATGGCTG TGACGGTGCA AGGTCAGTCC CAACAAGGAA ACGGCTACAT 704
C S E Q M A V T V Q G Q S Q Q G N G Y I>

Fig. 10a

09869582-102802

754
CCCTGGCTGG ATGCTGTGAG CGATACTTCT TCCCCAATA AAGATCTTAA GCAAGTACTG
P G W M L *

804 854
GTGGGGTCTT CGTGGGTGTA TCTTAGATCT TATGCATATG AATAATAATG TTATTGCACA

904
AGACTTTTGC TTTTGTAGAC ACAAGTGGCT ATAGCTGTAA TAGCCTTCAA CATCTCTCTT

954
CTGTTTCAGG ATTTGTTTGT GCCTATTGTA ATTGCTTATA TATGTATGGT TTGTATAATG

1004
TGTGAAATGT TAACATCGAC CATGTCTCAT CTGGTGAAAA AAAAAAAAAA AAAA

09869582-022602

Fig. 10b

Sequence Range: -395 to 908

GAATTCGGGC CCTCACACAT TTCTTATCTT TTGCTCTCAA TAGATTCCAT TGATTCAAAA⁻³⁴⁶
CAAAATTTTC ATTAAGATT CACAACCTCC ACACACTTCC AAACACAATT AAAGAGAGGA⁻²⁹⁶
AAAAGAATCA ATAACCCTAT AAATAAAAA TCAGACAAAC AGAAGTTTCC TCTTCTTCTT⁻²⁴⁶
CCTTAAGCTA GTACCTTTTG TTCTTGAAAT TAGGGTTAAT TTCTTTTTTC CAAATACCAT⁻¹⁹⁶
CAATTCTCCA GACCATAAAA ACTCAAAAAG ATCAGATCTT TCCTCTGAAA AAGAGATACC⁻¹⁴⁶
CAACTTATGT TTTTGTGTGT CTGTATATAG ATAAACATTA CATACCCATTA TTTGTGTATA⁻⁴⁶
GACATAAAAA GTGGAAATTA AGGTAACAAA AAGAAATGGG AAGAGGAAGA GTAGAGCTGA⁵
M G R G R V E L>
AGAGGATAGA GAACAAAATC AACAGACAAG TAACGTTTGC AAAGCGTAGG AACGGTTTGT⁵⁵
K R I E N K I N R Q V T F A K R R N G L>
TGAAGAAAGC TTATGAATTG TCTGTTCTCT GTGATGCTGA AGTTGCTCTC ATCATCTTCT¹⁰⁵
L K K A Y E L S V L C D A E V A L I I F>
CCAACCGTGG AAAGCTCTAT GAGTTTTGCA GCTCCTCAAA CATGCTCAAG AACTTTGATC¹⁵⁵
S N R G K L Y E F C S S S N M L K T L D>
GGTACCAGAA ATGCAGCTAT GGATCCATTG AAGTCAACAA CAAACCTGCC AAAGAACTTG²⁰⁵
R Y Q K C S Y G S I E V N N K P A K E L>
AGAACAGCTA CAGAGAATAT CTGAAGCTTA AGGGTAGATA TGAGAACCTT CAACGTCAAC²⁵⁵
E N S Y R E Y L K L K G R Y E N L Q R Q>
AGAGAAATCT TCTTGGGGAG GATTTAGGAC CTTTGAATTC AAAGGAGTTA GAGCAGCTTG³⁰⁵
Q R N L L G E D L G P L N S K E L E Q L>
AGCGTCAACT GGACGGCTCT CTCAAGCAAG TTCGGTCCAT CAAGACACAG TACATGCTTG³⁵⁵
E R Q L D G S L K Q V R S I K T Q Y M L>
ACCAGCTCTC GGATCTTCAA AATAAGAGC AAATGTTGCT TGAAACCAAT AGAGCTTTGG⁴⁰⁵
D Q L S D L Q N K E Q M L L E T N R A L>
CAATGAAGCT GGATGATATG ATTGGTGTGA GAAGTCATCA TATGGGAGGA TGGAAGGCG⁴⁵⁵
A M K L D D M I G V R S H H M G G W E G>
GTGAACAGAA TGTTACCTAC GCGCATCATC AAGCTCAGTC TCAGGGACTA TACCAGCCTC⁵⁰⁵
G E Q N V T Y A H H Q A Q S Q G L Y Q P>
TTGAATGCAA TCCAACCTCG CAAATGGGGT ATGATAATCC AGTATGCTCT GAGCAAATCA⁵⁵⁵
L E C N P T L Q M G Y D N P V C S E Q I>

Fig. 11a

[illegible]

Fig. 11b